Canadian
Home Economics
Journal
Summer 1985 Volume 35, No. 3

Revue
Canadienne
d'Economie Familiale
Été 1985 Volume 35, No 3

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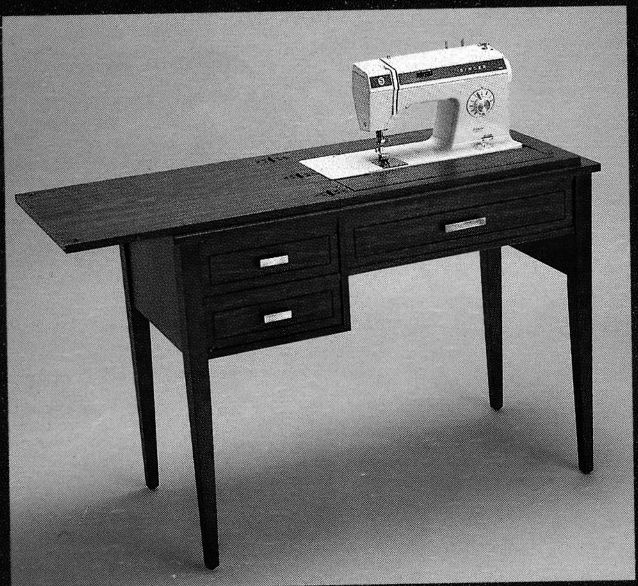

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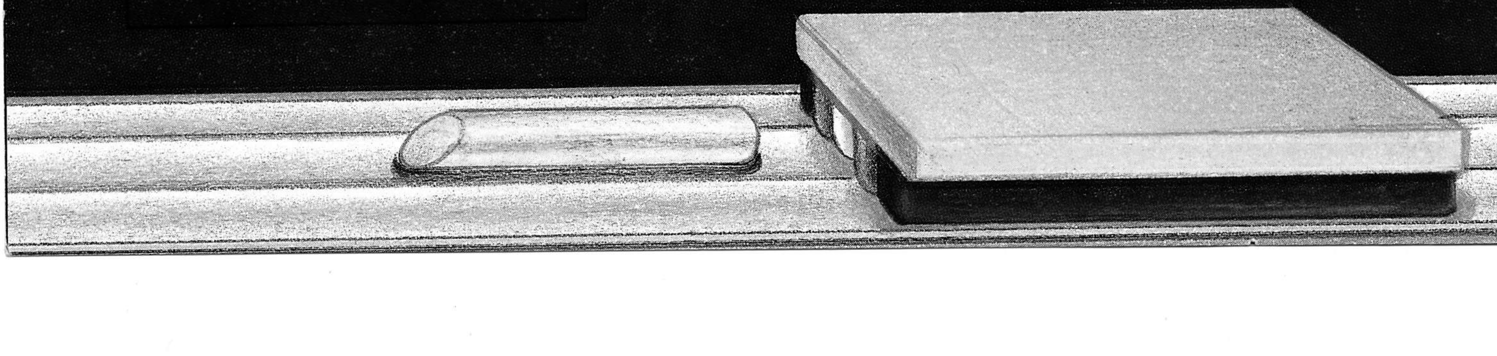

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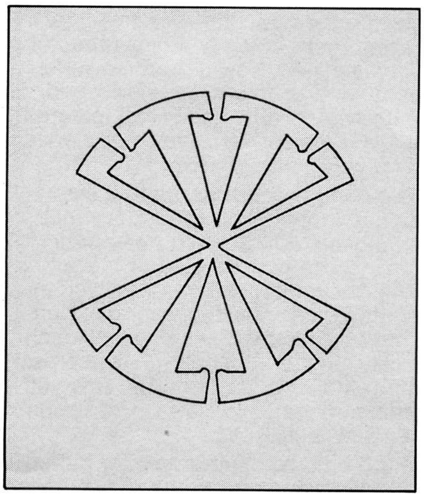

The cover, designed by Kelli Rey symbolizes the transforming environment through the graphic representation of trees used in mirror image in which the gradual change in color gives the impression of transformation. (Designed as part of a graphic arts project at Red River Community College, Winnipeg under the direction of instructor, Dennis Pankiw.)

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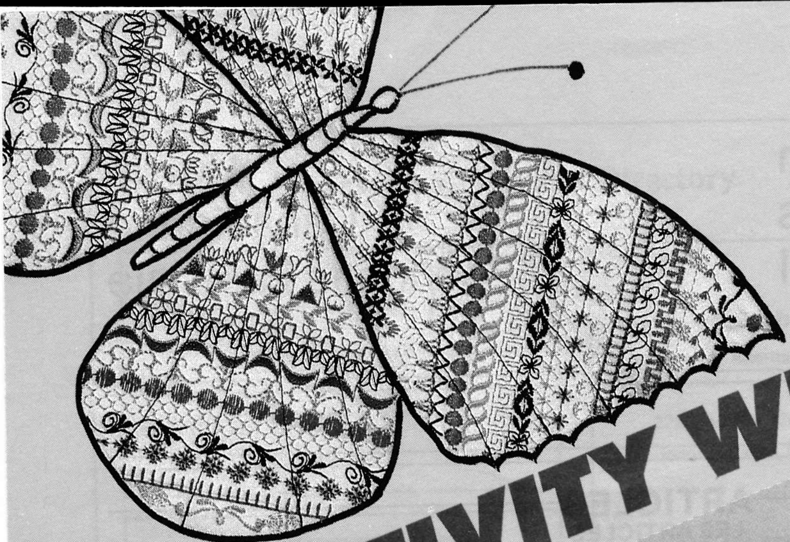

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from the Editors

The transformation theme for the *Journal* in 1985 continues with a focus on the environment. According to Vaines (1985 *CHEJ, 35*, p. 70) "we define our knowledge base as the study of family as an environment (family studies, family resource management, human development) and family in the near environment (foods, nutrition, clothing, textiles, housing and design)." In this issue the editors have chosen to deal with selected factors of the environment that influence the kind and quality of many of our interactions with others — housing, dress, food regulation, drug use.

Beyond the field of study of home economics is the profession of home economics, within its own environment. Part of that environment is the professional journal. How well the journal meets the needs of the profession by providing information, ideas about professional practice, insights into external factors influencing professional and personal life is dependent on the willingness of the members to share knowledge, ideas, and advice. The knowledge could be in the form of an article submitted for publication; the ideas could be in the form of a letter to the editor; and the advice should be given by taking the few minutes required to complete and return reader surveys or letters to the editor.

You have an important role to play. The disappointing return rate (1.4%, as compared to a return rate of 5.3% last year) for the survey in the Winter 1985 issue tells us little about how we are performing as editors or how we could do better. We share with you the information gleaned from these few responses.

What Were The Ratings?

The ratings on the articles/sections indicate that the Departments are the most read sections; most people read about half the research, theme, and general articles; and the most common rating given those articles was "good." The overall rating for the usefulness level was "average" and for the interest level was "good."

What Did Readers Say?

There was great variety in the comments related to the ratings including: "Excellent journal, well done as is"; "Some articles seem very tedious if one does not have a current background in subject matter"; "None of the articles were of any use to me in my job (teacher of high school). I found a few interesting from a personal viewpoint"; "This issue was well done . . . the emphasis on the change process, transformation crossed the subject matter lines. This is a good approach for a profession as eclectic as ours".

What Do Readers Want?

Some indication was given as to what the respondents want to see in the *Journal*. Here are a few of their comments: "I feel you have a good mix of topics"; "A few more on the family"; "Increase the food related articles, less on the family"; "Spends too much time talking about professionalism, image and meaning of home economics. I like something more concrete . . . to keep me up to date"; "Watson article [on registration of the home economics profession] was particularily useful"; "More articles on native people and nutrition problems and programs."

What Do We Want?

We want to make this 'environment' of the profession the best possible. We want to respond to the needs and interests of the readership. We want to hear from **YOU**. Assume some responsibility for your journal by submitting articles, ideas, and opinions. Be a contributor to your professional environment. ☐

Margaret Morton
Barbara Baczynsky
Joyce MacMartin

Reader Forum

Letters and comments from the readership

Has Home Economics Helped?

In October 1984, as Vice-President Professional Development of CHEA, I attended the National Women's Groups Meeting, sponsored by the Canadian Advisory Council on the Status of Women, Status of Women Canada, and Secretary of State Women's Program. Women from around the country, representing national women's groups attended. As sessions and conversations in social settings progressed, I began to ask myself, "Have we really progressed during the Decade for Women?"

Yes, there has been consciousness raising. Yes, there is increased participation in the labor force. Yes, there have been giant steps forward in policies and programs for institutionalized child care, equal pay for work of equal value, and education and training opportunities.

To what extent, however, are the changes in the social and economic position of women reflected in attitudes held by women about each other? What structural, legal, political, economic, and social obstacles are still to be overcome? Both of these questions are particularly relevant to the profession of home economics as we address the CHEA Strategic Plan — especially Goal 4, "To improve quality of life for individuals and families." We must develop forward-looking strategies for the advancement of women if we are to influence quality of life for individuals and families.

As a home economist, I have been priviledged to have many professional opportunities to fill leadership roles and to gain confidence through education and training in an almost exclusive female atmosphere. I have never felt *unliberated*. Yet the National Women's Groups Meeting in October emphasized for me, once again, that home economics is seen to perpetuate "traditional roles of women", "gender stereotyping" and "sex ghettos." It is no myth that our profession, like the other helping professions, has an image problem.

(Continued on page 175)

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Subscriptions, membership fees and change of address should be mailed to the CHEA National Office, 805-151 Slater St., Ottawa K1P 5H3, Canada.

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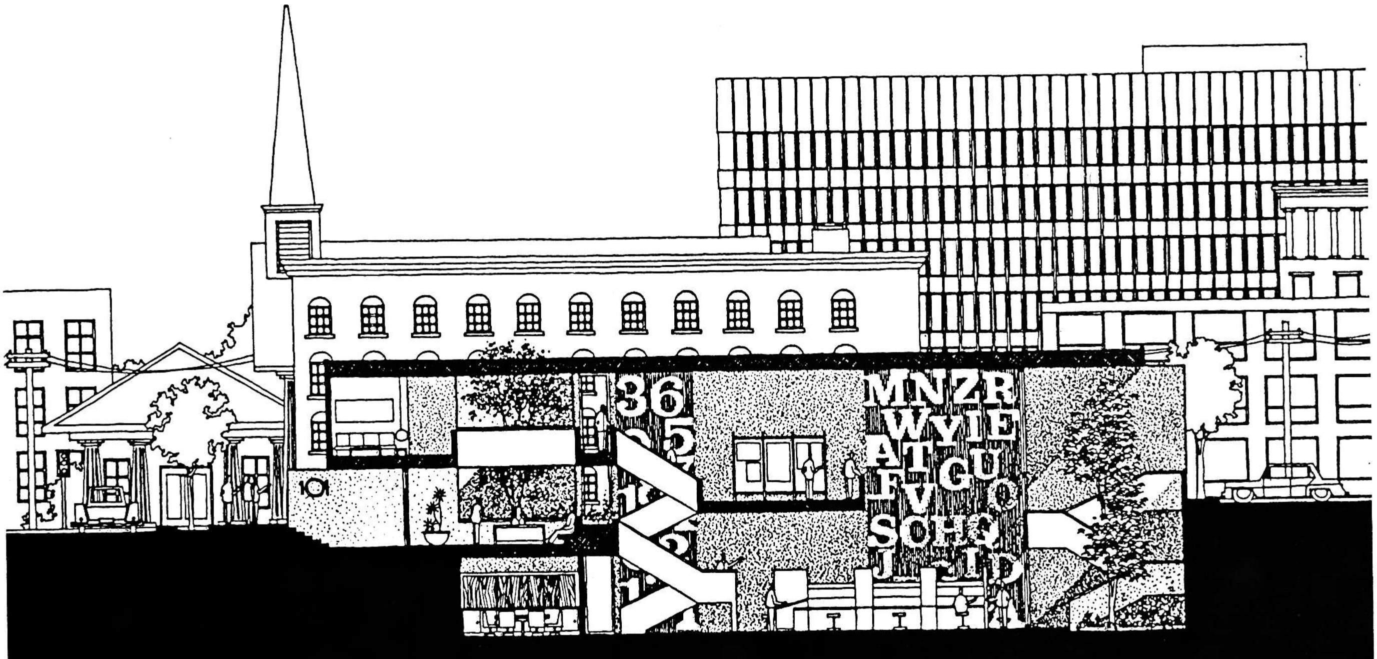
Focus On:
Transforming Environments

Photo courtesy University of Manitoba

The environment is a total system . . .
so carefully designed as to ensure the appropriate
ecological relationship between man and his physical surroundings.

— John C. Parkin



Transforming the Urban Environment

of Canada's elderly

Avrum Regenstreif

Abstract

This paper reviews emerging categories of Canada's elderly — their characteristics and respective environmental needs. It identifies some fundamental principles which affect these needs and also considers critical problems which arise in ensuring adequate shelter and support services. Finally, it provides examples of innovation in housing and support services. It argues that the need of the elderly to be independent and autonomous can be realistically met by enabling them to remain in their own homes.

Résumé

Cet article repasse les catégories qui se présentent des personnes âgées au Canada — leurs caractéristiques et leurs besoins environnementaux respectifs. Il identifie des principes fondamentaux qui influencent leurs besoins et considère aussi des problèmes critiques qui surgissent en assurant un logement adéquat et des services d'appui. Il donne, finalement, des exemples d'innovation vus dans le logement et dans les services d'appui. Il soutient que le besoin qu'ont la plupart des personnes âgées d'être indépendantes et autonomes peut être satisfait d'une façon réaliste en leur permettant de rester dans leurs propres demeures.

In industrialized countries growing populations of elderly are a new phenomenon characteristic of demographic and technological changes that have occurred in the twentieth century. Previously, high mortality rates early in the life cycle limited life expectancy and in turn, the proportions of surviving elderly. The past 50 years has resulted in increases in average age of the population, improvements in health care, higher incomes, and safer as well as more urban environments. Statistics Canada (1975, p. 114) projections for life expectancies in 1985 relative to 1931 have changed to 74 years from 60 years. Over the next 45 years, the projection is for large increases in Canada's elderly (the absolute number tripling by the end of the century) and for substantial growth in those over 75 (Shulman, 1980, p. 27). Concomitant increases in frail or ill elderly are also expected.

With "77 percent of Canada's elderly living in urban centers (1000 or more), about 53 percent in centers 100,000 or more, and approximately 29 percent in Toronto, Montreal and Vancouver" (Shulman, 1980, p. 30), improving the quality of life for an aging population will require significant transformation of urban and regional environments —including housing, transportation, and support services. Positive attitudes will be required to respond to these needs. For many professionals, a major challenge will be planning for the needs of this aging society.

This paper identifies emerging categories of the elderly and their respective environmental needs. It considers basic principles which are important in satisfying these needs and suggests alternatives for housing and support services designed to improve quality of life for a majority of elderly.

Categories of Elderly

While the biological process of aging continues inexorably through life, becoming elderly (that is, a senior citizen over 65) marks an arbitrary socioeconomic stage. This stage is sometimes related to the end of a renumerative career and the beginning of pensionable retirement, but more often reflects a period of reduced means. These elderly are only part of a wider population at the mature end of the age spectrum.

Statisticians acknowledge that the mature end of the age spectrum includes the 55- to 60-year-old "preretireds" and the 60- to 65-year-old "early retireds." These sub-categories indicate the structure and magnitude of elderly populations of the future.

Avrum Regenstreif holds a bachelor's degree in architecture from McGill University and master's degrees in architecture and city planning from the University of Pennsylvania. Currently, he is completing an interdisciplinary doctorate in energy conservation and urban development at the University of Manitoba.

For example, in 1981, approximately 9.7% of Canada's 24.3 million population were over 65, but 20% or almost 5 million were over 55. By the turn of the century, the number over 65 is projected to increase to 12% and by 2020 to increase to 20%. Also in 2020, the population over 55 is projected to increase to 40% of the total (Powell & Martin, 1980, pp. 201-204).

Often presented as a homogeneous group, the elderly are far from uniform. At least three useful classifications have been suggested including: the "young" elderly, from age 65 to 79; the "middle" elderly, from age 80 to 94 and; the "old" elderly from age 95 (Havens, 1980, p. 221). Although each of these groups has substantially different needs and requirements, and the precise edges of the sub-categories may be blurred, it is widely accepted that the middle and older elderly (over 75 to 80) have different needs from those over 65. For example, many elderly over 75 to 80 are independent and autonomous; yet a significant proportion are defined as "frail" or "at risk." This means that they experience diminished physical or mental capabilities and require greater attention and support.

Conditions which put the elderly at risk may range from slight to major limitations in physical capability or mobility arising from a variety of medical conditions or from diminished faculties. As such, periodic or continuous external care may be required. For the mentally alert frail elderly, independence and autonomy are fundamental concerns and the desire to remain as independent and self-sufficient as possible is very strong.

Shelter needs of the frail elderly may range from conventional single detached dwellings, appropriately adapted to minimize barriers to mobility and security, to specially designed arrangements of new or renovated houses or apartments. In such environments, frail individuals should be able to receive a variety of support services including home maintenance and repair, house cleaning, meals-on-wheels, help with laundry and shopping, nutrition counselling, and health care services as well as transport assistance.

Housing can be designed or modified to facilitate arrangements to mitigate frail or at risk health conditions. The potential variety of individual and group arrangements is very great. An important consideration of housing the frail or at risk group is the economic aspect since these elderly represent a minority which absorb a disproportionately large share of health care and support service costs. To the extent that greater innovation in the design of urban environments that serve these groups can reduce or slow the rate of increase of care costs, both qualitative and quantitative benefits can be significant.

Environmental Needs

While various elderly categories have different environmental requirements, as a group, the elderly have certain common needs which have implications for shelter alternatives and locational choices. These include:

- Stability and continuity of lifestyle in familiar surroundings. Studies have shown that the elderly move less often than the younger age groups. For example, a study in the United States has indicated that 90% of the elderly don't move after they reach 65 (Carp, 1965, pp. 65-81). A recent Canadian study reveals a similar trend (Fletcher & Stone, 1983, p. 23).
- Accessibility to basic community services. Because they are less mobile, the elderly have greater difficulty in getting access to many services. Thus housing should be convenient to basic services including shopping, banking, health care, chiropody, barber shops, and beauty salons.
- Choice in living environments. The elderly need a choice of living alternatives, including how they will use those alternatives and, with whom they will live.
- Autonomy and independence. In general, the elderly value independent living and cherish control over their own lives. This means a living environment which extends and enhances the time span of an independent lifestyle and allows control over their participation in their community.
- Economic predictability and security. For most elderly, retirement and aging is a period of reduced or constrained circumstances. For example, Fletcher and Stone (1983) found that the elderly had "incomes disproportionately concentrated at the lower end of the income scale (less than $15,100) .... [with] older unattached individuals .... heavily concentrated in the lower money income groups. Fully 57% of them had incomes under $7,000" (pp. 42-43).
- Adequate space and comfort. With an "empty nest," an older couple or individual householder may enjoy, for the first time, a surplus of physical living space and may be able to easily accommodate family and visitors. Green, Fedewa, Johnston, Jackson, and Deardorff (1975) have suggested that,

> contrary to conventional wisdom, the elderly require as much or more floor area to carry on their activities as would a young person carrying on the same activities. Elderly people do require special design adaptation of spaces to account for possible physical limitations, but the market success of unusually small dwelling units is most likely a product of demand created by a housing shortage and not by a user desire. (p. 12)

- Maintenance of health and well-being. One of the most important functions of housing for the elderly is to extend their independence. However, a dwelling which may have been able to serve a family through the early years of the family cycle, may no longer provide effective support for elderly and/or frail elderly inhabitants without modification. For example, location or physical design may render a dwelling and/or its equipment no longer appropriate if a barrier-free environment is needed.

Support Services

The elderly require adequate support services in their urban environment including easy access to food, health care, and transport. However, despite universality of many support services in Canada, access to such services in all regions is uneven.

Food. Two problems of nutrition for the elderly are access to competitively priced food supplies (especially within older communities and neighborhoods) and availability of nutritious, low cost, prepared hot meals (e.g., meals-on-wheels).

In recent years, the first problem has become more acute as supermarkets in many mature suburban and inner city sites have been closed and megastores have been opened in the outer suburbs. The elderly, faced with this loss of convenient and competitive food outlets have become increasingly concerned. Unable to drive or arrange transport to the new locations, they become captive to small convenience store choices and prices.

The second problem which exists in some areas (and could become more acute as the proportion of older elderly increases), is the lack of adequate hot meal programs for semi-independent frail and/or ill elderly. Lack of these programs can increase the incidence of malnutrition, illness, and other social costs.

Health care. For the elderly, health care involves three components: home care, medical service, and personal counselling.

- Homecare, for the elderly who are no longer able to manage some essential tasks, requires a range of services — homemaking, personal care nursing, and medical equipment counselling. Unfortunately, such homecare is neither comprehensive nor universally accessible.
- Medical services for disabled elderly must include regular monitoring and assessment of health conditions. If it becomes policy to maintain the elderly in their own homes, increased medical monitoring and home visits by medical and/or para-medical care providers will be needed.
- Personal counselling and professional assessment is essential, given that aging is often a difficult phase in the life cycle. Improved access to such counselling will be necessary especially for the frail elderly.

Together, these services provide a vital health care package which can enable more elderly to remain independent. Such services together with home maintenance and repair, and transport and communication assistance can facilitate more flexible and economic urban alternatives, reduce pressure on costly institutional arrangements, and conserve available institutional facilities for those no longer able to live independently.

Transport. If most of Canada's elderly live independently, the need for appropriate transport and communication systems will increase. For healthy independent elderly persons, living alone presents no problems that are more complex than those experienced by the adult population, particularly, if they can afford a car and can drive. However, for elderly who are unable to have independent transportation, isolation and the insecurity of living alone with limited mobility can present serious problems. For some, it can mean the difference between continuing to live independently and being compelled to relocate to more secure institutional environments.

The elderly value independent living and cherish control over their own lives.

However, a variety of social arrangements and technologies are now available that can extend independence and mobility. In communications, these range from informal support networks among friends and relatives to more elaborate community-based services and technologies such as emergency dialing devices. Transport alternatives for the elderly range across a broad spectrum from individualized systems to conventional urban mass transit.

The critical needs of the elderly raise two important, related, policy questions:

- How many new heavy-care elderly units can be deferred by providing less costly alternative housing and support services arrangements? and conversely,
- How many unnecessary moves of middle and old elderly can be avoided by timely modifications to existing housing, environments, and services?

Alternatives for Housing and Support Services

Existing housing conditions. In 1981, single family, detached houses and self-contained apartments housed approximately 80% of Canada's elderly. Approximately 9% lived in "collective dwellings of a commercial, institutional or communal nature" (Fletcher & Stone, 1983, p. 68) and the remainder lived with relatives or friends. A majority of the elderly, more than half of whom were women, owned their own homes (McClain & Doyle, 1984, p. 10). Of approximately one million dwellings owned and/or occupied by the elderly, at least 600,000 were single detached units and 350,000 were multiples including rental apartments, condominiums, and co-operatives. The remainder included duplex, row housing, and other units.

In urban areas, the elderly tend to be concentrated in core edges and in mature suburbs. In 1981, in Winnipeg for example, the over-65 population in most older and mature census tracts exceeded 15% of total population, they exceeded 25-30% in many, and 40% in a few (Regenstreif, 1984, p. 34). In agricultural rural areas, the elderly tend to be concentrated in larger towns and villages. Northern resource towns and Indian reserves house relatively low numbers.

Although the elderly occupy more of the older, technically substandard housing in many regions, data presented by Fletcher and Stone (1983, p. 79) indicates that the condition of much of housing stock occupied by the elderly is good with only 13% requiring major repairs. Their data also indicated that the condition of this housing was slightly better than that of the adult population under 65.

Future potentials for housing and support services. Projections to the year 2005 and beyond suggest that the most rapidly growing sector of the population in the next 20 years will be the middle and older elderly with an increasing predominance of women (Fletcher & Stone, 1983, pp. 16-21). This growth will be followed by rapid increases in numbers of younger elderly for a subsequent 20-year period as the post-World-War-II baby boomers reach retirement age.

Consequently, in the immediate future (i.e., 1985-2005), a major challenge will be to maintain, rehabilitate, and enhance housing, support services, and the related urban environment. If most elderly choose to remain in their own homes or apartments, home renovation and repairs, home sharing, and innovative financing will become increasingly important.

Renovation and repair of housing that is in reasonable condition is more resource efficient and economic than replacement by new housing designed for rapid obsolescence and continuous replacement. For example, a 1983 Manitoba housing study indicated that renovation and repair programs were one-third to one-half the cost of new construction (Regenstreif, 1984, p. 10). A variety of federal and/or provincial grant and loan programs for renovation, repair, and energy conservation will continue to be needed by and attractive to qualifying elderly.

To serve the needs of frail elderly who desire group living arrangements, but do not require medical or nursing care in an institution, many jurisdictions in Canada and the United States have developed a number of innovative congregate housing and home-sharing programs. Some notable examples include: "Three-in-One House," an innovative group home program in Maryland (Hanaway, 1981, p. 9); the Niagara Private Home Care program in Southern Ontario (Rapalje, 1980, pp. 212-213); The Florida Share-a-Home Program (Streib, 1978, pp. 413-420); and Project H.O.M.E., an innovative co-ordination and identification program for potential shared housing candidates in Vermont (Fengler & Danigelis, 1983). In addition, many provinces and states contain excellent examples of conventional institutional congregate housing. Congregate housing has been defined (Malozemoff, Anderson, & Rosenbaum, 1978) as "age segregated housing built for the elderly .... which provides at least an on-site meal program" (p. 1). In some examples, these types of projects are linked with personal care homes and/or other health care facilities.

With innovation in design of urban environments qualitative and quantitative benefits are significant.

Although the largest population of elderly live in their own homes, many are "asset rich but cash poor." With a house as their major asset but with limited income, they have difficulty obtaining financing or even being able to afford home repairs or modifications. In recent years, states such as Wisconsin, California, Ohio, and Massachusetts, have introduced a concept called Reverse Annuity Mortgage (R.A.M.). Under such programs, the elderly can generate cash to finance housing maintenance, repair, and other needs by a legal instrument which transforms some of the market value of their paid-up home into an annuity or similar type of payment.

In recent years, many innovations in urban transport have been introduced to serve the elderly. These include special fares, routes, and schedules; reserved seats on conventional transit; use of the specially equipped public vehicles for the handicapped to provide door-to-door service for frail elderly; telephone activated bus services (e.g., telebus); and shared taxis. In some rural areas however, innovative transport services have been less widely available.

A Mobile Home Care Van program has had considerable success in several countries, including Sweden (Von Sydow, 1978, p. 11) and the United States. A large adapted bus or motor-home, (e.g., in Monessen, PA) is used by outreach teams to deliver a variety of services to rural elderly who live in small settlements in remote regions. A wide range of services are provided including friendly visitor assistance, minor home repairs or home cleaning, medical supervision and monitoring, hot meal arrangements, chiropody, and hairdressing or barbering. Thus, a van becomes a travelling multi-service centre bringing different helpers or care providers on alternate visits.

Summary

Elderly populations have a range of different characteristics and needs, with the oldest and most frail requiring greatest support and services. For the next several decades, these elderly, predominantly women, will be the fastest growing group in Canada's age spectrum. Given a strong desire for independence, the increasing number of frail elderly will require that communities make timely efforts to reduce environmental barriers to mitigate risks to the health and well-being of the elderly. Potential benefits in extending the time span of elderly independence and autonomy can be very significant in both social and economic terms.

With new housing growth at only a few percent per year, most of the future shelter needs of the increased numbers of elderly cannot be realistically met with new housing nor do most elderly welcome the economic and/or lifestyle changes this may imply. Consequently, the most important potential shelter resource is continued use of existing housing (modified to reduce barriers) together with appropriate provision of support services and transport assistance. Transforming the urban environment to satisfy these needs in creative ways will provide care professionals, politicians, and the public with great challenges. ☐

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Visual Literacy

Margaret Bateman Ellison

the foundation for transforming shelter

To be fully human means to create as well as to choose, to make things beautiful as well as to admire beauty.

Sommer, 1972, p. 59

Abstract

In this article the concept of visual literacy is defined and related to its role in meeting human needs and achieving satisfying shelter through increased awareness. Specific examples illustrating environmental factors that can influence the quality of shelter are presented and suggestions are given as to how negative and inhibiting environments may be transformed. Human needs and color are discussed and the physical, physiological, psychological and chemical characteristics of color are related to the seasonal color theory wave that has been sweeping the country along with considerations for using color to create psychological warmth and/or the conservation of energy through color in home decor.

Résumé

Cet article repasse les catégories qui se présentent des personnes âgées au Canada — leurs caractéristiques et leurs besoins environnementaux respectifs. Il identifie des principes fondamentaux qui influencent leurs besoins et considère aussi des problèmes critiques qui surgissent en assurant un logement adéquat et des services d'appui. Il donne, finalement, des exemples d'innovation vus dans le logement et dans les services d'appui. Il soutient que le besoin qu'ont la plupart des personnes âgées d'être indépendantes et autonomes peut être satisfait d'une façon réaliste en leur permettant de rester dans leurs propres demeures.

Transformation, as the theme for the *Journal* this year, has provided a focus from which to examine aspects of our environment and ways of bringing about change through increased awareness and increased understanding of aspects of the environment. With this in mind, it is appropriate to consider the built environment and to explore the fundamental role that visual literacy plays in producing shelter that meets human needs.

The term "literacy" immediately conjures up the idea of ability to read written words and many of us can still remember the Dick and Jane stories that started us on the journey to becoming literate. Likewise, becoming visually literate requires a systematic process over time so that we can read "the environment," and through knowledge and experience become both more aware of and able to transform aspects of our immediate surroundings. Visual literacy, as understood from Sommer's (1972) presentation in *Design Awareness*, is defined as the state of being educated to environmental awareness. Over a decade ago Sommer cautioned us to be mindful of the traditional enemies of awareness, that is, the turnoff processes — adaptation, habitation, conformity, and adjustment. This, together with lack of knowledge and lack of motivation may undermine our ability to be aware of the influences of the visual environment.

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Shelter and Visual Literacy

To become sensitive to all aspects of the environment means considering the part played by emotions and motivation in the hierarchial arrangement of human needs — the basic or lower-level physiological needs for shelter and food, followed by the upper-level needs of safety and security, affection, esteem, and self-actualization. Satisfying the basic shelter need is fundamental if individuals are to have the time or interest to satisfy higher-order needs. Satisfactory shelter, however, is the result of more than meeting basic needs. Thus, if we are to become visually literate, a clearer understanding of all levels of needs in relation to shelter and an increased awareness of the environmental factors that can contribute to satisfaction with our built environment should be encouraged.

The satisfaction of needs is an ongoing process which must involve the persons whose needs are to be met. According to psychiatrist Matt DuMont (reported in Sommer, 1972), the extent to which one can influence the environment will determine that person's ability to perceive himself or herself as a separate human being. In recent years, we have continued to move from a user-builder society to one in which shelter is developed for the masses as fewer consumers have opportunities at home, work, or school to create environments that suit their unique needs. This may lead to the non-effective use of space and/or confine persons to being spectators rather than active participants. If there are opportunities for personalization, not only is the space enhanced but the transformed shelter will contribute to satisfying the upper-level needs of the individuals who live or work there.

With the increased cost of housing and a limited supply of housing in some markets, many more consumers have to settle for less than the Canadian dream. Having met the basic need of protection from the elements, how do families meet upper-level needs? If they are not met, what do they do? Do they live with the frustration or take stock of their environment — its components, origins, materials, and interrelationships — to establish the connections between themselves and the surroundings and do something to relieve the dissatisfaction? To do so requires knowledge.

Consider a specific example of a family faced with the problems of two children with allergies and no hope offered for desensitization. How healthy is their home? What is the degree of pollution in their residential environment? What carpets, draperies, pressed wood furniture pieces are emitting formaldehyde into their breathing space? The allergist may have suggested a spartan interior for the children's bedrooms and play spaces along with use of filter blankets over open windows during the night. But how do you confine children to treated spaces without a constant struggle? Possibly if the family had been more aware of the potential for pollutants from home furnishings, deoderizers, and cleaning agents different decisions would have been made in the marketplace and the allergies might never have evolved.

On an institutional scale, consider the nursing home with the long sparkling tiled corridor that exhibits a high standard of cleanliness and is the pride and joy of the housekeeping staff. How does it appear to the ambulatory and the semi-ambulatory patients? Might fear of slipping and broken bones make it seem so intimidating that the patients elect to be less mobile with consequent decreased physical agility, fewer social contacts, and lowered quality of life. All of this happens as the result of the material selected for the corridor because the maintenance program and the housekeeping needs were given priority over the needs of the patients. Knowledge of such physical and behavioral relationships should be encouraged.

Whether at the residential or institutional level, many aspects of shelter provide touchpoints for human interchange and can inhibit or enhance individuals' sense of being. For example, isolated housing, stationary seating, private rooms, separate apartments, bland walls, too little space or too much space, and absence of greenery all limit human interchange. In some instances this may be the desired result. But if those aspects are included in a person's environment through non-decision or lack of knowledge of their potential to inhibit interchange, a positive sense of being may be thwarted. In planning a room, for instance, what areas are included that can be used for plants? Many newer structures are designed without windows ledges and thus, if there is opposition to hanging pots or water rings on the floor, plants will only be included at considerable effort or their use may be disregarded and opportunities to meet upper-level needs never realized.

Color as an Aspect of Visual Literacy

Human needs and color. An important aspect of the visual environment is color. In recent months an interchange phenomenon, encouraged by our concern for color, has swept the country from west to east. An all too familiar question has been "have you had your colors done?" Consumers, both women and men, have sought advice on color in wardrobe planning and the "seasonal color theory" introduced by color theorist Johannes Itten in the 1930s and recently promoted by Revelli (1975) in the book *Color and You* has been embraced by hundreds, possibly thousands of North Americans.

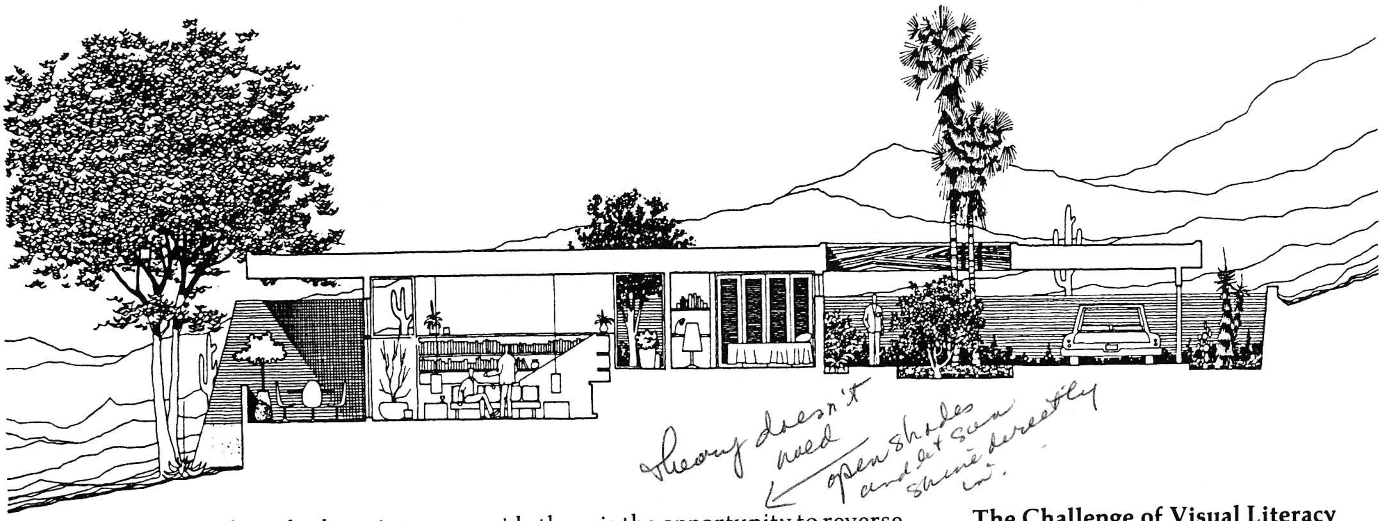
Building upon this consumer response, seasonal color theory is also being promoted in home decor as a means of personality expression and reinforcement ("How to find . . .", 1985). The question, however, that **should** be asked when making color-related decisions for homes is, "Do consumers understand the physical and physiological implications of their decisions?" Unless they do, there is a pending danger that if the need to enhance their self-images results in exclusive use seasonal color theory, biological and economic necessities will be ignored and aesthetic needs of other family members may not be satisfied.

Motivation theory supports the premise that persons need to have a sense of development while maintaining equilibrium and as well, to achieve a sense of meaning (McGuire, 1976). Insight into motivation is particularly relevant to understanding consumer behavior. Since color is such an integral factor in selecting consumer products, it is helpful if persons are aware of the physical, chemical, physiological, and psychological characteristics of color. That knowledge can assist in their involvement in managing color in their environments. Development and equilibrium are equally as important as meaning. Understanding color provides opportunities for development, self-expression, and environmental control. With such knowledge consumers would be more visually literate and gain confidence in their ability to create satisfying living spaces.

Color and transformation in shelter. Lindahl (1981) in the book, *Energy Saving Decorating*, provides an overview of psychological decorating and presents information on the psychological effects of color. It gives examples of color studies that illustrate the emotional and personal effects color can have on people:

- Cafeteria areas painted green have brought requests to "turn up the thermostat." But when the same rooms were painted a warm yellow or orange the complaints ceased.
- Blood pressure and pulse rate can be lowered in the presence of cool colors.
- Time seems to pass faster for patients when rooms are painted in warm colors rather than cool colors.
- Some athletic directors paint visitors' dressing rooms pale blue and home teams', bright red.

Consumers could gain from design education that encourages awareness of the environmental factors that influence quality of shelter.



Theory doesn't need open shades and let sun shine directly in.

If we are to carry these findings into other environments it would appear that: waiting to have an order taken in restaurants would appear to be shorter if decor colors are warm; kitchens should be painted in cool colors to offset any stress situations; and children's bedrooms could either encourage study or greater activity relative to the color(s) used.

Such findings demonstrate that in addition to complementing a person's personality the effects of color on the people living in the space should not be ignored. When selecting colors there is the potential to influence behavior and/or create psychological warmth or coolness.

In addition to psychological warmth, physical warmth and daylighting in a space can be influenced by color. As a result of the physical characteristics of color, light colors reflect light and dark colors absorb it. This influences both the quality of daylighting in a space and the radiant heat from sunlight collected in a space. The quality of light and quantity of heat in a room are influenced by the orientation of the room, i.e., whether the room receives light from the south or north, east or west. The quality of light and quantity of heat can then be enhanced or inhibited by color selections used in the space. To reduce the need for electric lights there should be light surfaces but to hold heat dark colored surfaces are required. Therefore, some sensitivity to the function of the room, its orientation, and priorities established for heating and lighting should influence the choice of color for walls, floors and furnishings.

Window treatments in particular should be considered. For instance, slim shades may not be aesthetically pleasing to some but if they are selected with a dark side and a light side there is the opportunity to reverse them according to the seasons: in the winter the dark side is turned to the exterior to absorb heat and the light side to the interior to reflect heat and light into the room; in the summer the process is reversed. What one may feel is lost in aesthetics is gained in economic satisfaction as well as the satisfaction of having more control over the environment. Similar considerations should also be given to other window treatments. There is no law that says the conventional side panels are best. In the pursuit of a more energy efficient environment there are many options to create alternative window treatments and use the physical characteristics of color wisely.

The physical characteristics of color can also be used to achieve optical illusions. Light and cool-colored surfaces appear farther away than dark and warm surfaces. Thus it is possible to adjust the apparent size and relationship of components in a room through the use of color. If you have a large bed in a small room, try to reduce the contrasts in color between the bed and the floor, i.e., use the same color on both and the room will appear more spacious and satisfying.

In the past fifty years color preference has been studied and there is evidence that warm colors are less preferred than cool colors (Bennett, 1977). A recent survey by Bateman Ellison (1985) to determine color preferences showed that cool colors were preferred by a ratio of three to one by 201 attendants at a series of Women's Institute workshops in Prince Edward Island. Thus, if color is to play a positive role in energy conservation as well as controlling reactions to spaces, there might be a need to educate persons in selection of color rather than having them base decisions on preference.

The Challenge of Visual Literacy

Individuals need to be able to change their surroundings, to be creative and to express themselves. Color is a key element in that process. Satisfying shelter needs, however, is the result of more than using color to create a beautiful home. Consumers who seek color advice for their homes need more information than how to achieve color-personality compatability.

Consumers could gain from access to housing and design education that goes beyond teaching absolutes and encourages persons to be more aware of the environment generally and the environmental factors that influence quality of shelter and community development. Shelter is too basic a need to be ignored and too great an opportunity through which to realize higher-level needs. Advancement in visual literacy is needed to offset the enemies of awareness and to meet new environmental challenges as they emerge. Otherwise individuals will not flourish as human beings. To ensure that they do flourish a foundation for transforming shelter needs to be laid. ☐

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Food and Nutrition Policy

a changing environment

Margaret M. Cheney and Christina M. Zehaluk

Abstract

The food and nutrition environment is continually changing as a result of advances in scientific knowledge and technology, and alterations in lifestyles. Using its mandate to protect the health of the consumer, the Health Protection Branch of the Department of National Health and Welfare has responded to these changes. The regulatory initiatives of the 1970s in this area were intended to improve or maintain the nutritional quality of foods. In the 1980s it is foreseen that regulatory initiatives will reflect the demand of consumers for foods consistent with a 'healthy' lifestyle and for information to allow them to make appropriate food choices consistent with this lifestyle.

Résumé

Le milieu alimentaire et nutritionnel change constamment à cause du progrès des connaissances scientifiques et de la technologie et à cause des modifications des habitudes de vie. En faisant utilisation de son mandat de protéger la santé des consommateurs, la Direction générale de la protection de la santé du Ministère de la Santé nationale et du Bien-être social, a répondu à ces changements. Les mesures de réglementation des années soixante-dix au sujet des aliments et de la nutrition étaient destinées à améliorer ou à maintenir la qualité nutritionnelle des aliments. Dans les années quatre-vingt, a été prévu que les mesures de réglementation devront réfléchir les souhaits des consommateurs d'obtenir des aliments conformes aux habitudes de vie 'saine' et de recevoir des renseignements leur permettant de faire des choix appropriées quant à leurs aliments et répondant à leurs habitudes de vie.

Significant changes in our food and nutrition environment have been brought about in the last 15 years by advances in scientific knowledge and food technology, and alterations in consumer lifestyles.

There is an increased awareness of the role that foods and nutrition play in the maintenance of good health. New foods and ingredients are appearing on the market. Lifestyles have changed as a result of a complex series of social, economic, and technological factors (Danielson, & Robbins, 1984; Sloane, Leone, Powers, & McNutt, 1984; Pellicer, 1983; Statistics Canada, 1979). Moreover, increased knowledge has lead many consumers to demand that the food manufacturer provide nutritious foods as well as information on their composition and place in the diet (Liefeld, 1983).

In response to this changing environment, the federal government is using its legislative mandate under the *Food and Drugs Act* to maintain or improve the nutritional quality of the food supply and to provide consumers with sufficient information to assist in the selection of their foods.

Legislative Mandate

The legislative authority for the role of the federal government in the area of nutritional quality of foods is contained in the *Food and Drugs Act*. The current Act, in force in Canada since 1953, makes it an offence to sell a food that contains a harmful or poisonous substance, that has been manufactured under unsanitary conditions, or that is represented in a manner that is false, misleading, or deceptive. In addition, the sale or advertising of a food to the general public as a treatment, preventative, or cure for certain diseases (e.g., heart disease, hypertension, cancer) is prohibited.

The *Food and Drugs Act* is a federal statute that was enacted by Parliament and can only be amended by Parliament. The Act, however, does give the Governor-in-Council, i.e., the Federal Cabinet, the power to make regulations to carry out the purposes and provisions of the Act. This authority enables the administrators of the *Food and Drugs Act and Regulations* (Health and Welfare Canada, 1983b) to respond more rapidly to changes in science, technology, and consumer demand than would be possible if all such matters had to be referred to Parliament.

The regulation-making powers of the Governor-in-Council are specified in the Act. Of particular relevance is the authority to make regulations regarding the labelling and advertising of foods, the condition of sales of a food, and the use of any substance as an ingredient in a food, in order to prevent the consumer from being deceived or mislead, or to prevent injury to the health of the consumer. Regulations are continually being reviewed and developed in response to requests from consumers, the food industry, and the scientific community. Prior to the recommendation of any amendments, an extensive consultative process is carried out which involves all the interested parties enumerated above.

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Responsibility for the administration of the *Food and Drugs Act and Regulations* (Health and Welfare Canada, 1983b) pertaining to foods is shared by the Health Protection Branch of the Department of National Health and Welfare which is responsible for the health, safety, and compositional aspects of foods, and the Bureau of Consumer Affairs of the Department of Consumer and Corporate Affairs which is responsible for the labelling and advertising of foods, and economic fraud aspects.

Regulatory Measures of the 1970s

Prior to 1970, consumers generally relied on a varied diet of traditional foods to ensure an adequate intake of nutrients. Occasionally it was necessary to add nutrients to foods to restore processing losses or to prevent nutritional deficiencies. During the 1970s, technological advances in the form of fabricated and highly processed foods, consumer demand for convenience foods, and the results of the Nutrition Canada National Survey (Health and Welfare Canada, 1973) provided the impetus for a series of regulatory initiatives aimed at improving or maintaining the nutritional quality of foods. These included:

- publication of policy guidelines on the addition of nutrients to foods, 1971 (Health and Welfare Canada, 1971)
- compositional and labelling requirements for foods for special dietary uses (calorie-reduced, low energy, sugar-free, low sodium), 1974
- nutritional requirements for simulated meat and poultry products, meat and poultry product extenders and egg substitutes, 1975
- mandatory addition of vitamins A and D to milks, 1975
- mandatory enrichment of flour, 1976
- nutritional requirements for infant formulas, 1976
- limitation on the salt content of baby foods, 1976
- nutritional requirements for enteral feeding preparations, 1978
- nutritional and labelling requirements for meal replacements and prepackaged meals for weight reduction, 1978

These regulatory amendments resulted in the establishment of nutritional quality requirements for certain staple foods, special purpose foods, and substitutes for traditional foods. From this base, the Health Protection Branch is moving in the 80s to respond to the changing needs of the times.

Regulatory Response in the 1980s

Consumer attitudes and practices greatly influence the products available in the marketplace. A number of factors including alterations in the traditional family structure, women working outside the home, higher incomes, changes in the size of various age groups, and a generally more sophisticated and better educated population affect food practices (Danielson & Robbins, 1984; Sloane et al., 1984). Eating habits have become less traditional and the use and preparation of foods is changing. Consumers who do not have the time or desire to prepare meals are demanding convenience foods of good quality and acceptable nutritional value.

> *Consumers . . . are demanding convenience foods of good quality and acceptable value.*

Consumers are also becoming more health conscious as evidenced by their interest in physical fitness and in following a 'prudent' diet (Clydesdale, 1984). In doing so, they are seeking to reduce their intake of fat, sugar, and salt. Food manufacturers are responding by marketing products aimed at the health conscious consumer. At the present time, the *Food and Drug Regulations* set out compositional and labelling requirements for 'foods for special dietary use' intended for individuals on therapeutic diets who need to control their intake of energy, fat, cholesterol, or sodium. The requirements for these foods are somewhat restrictive for the healthy consumer who wishes to select a prudent diet to remain healthy. The Health Protection Branch recognizes that there is a need to revise these Regulations to encourage manufacturers to produce a broader range of food products with moderate reductions in energy, fat, sugar, and sodium while at the same time ensuring that the foods are adequately labelled to inform both the healthy consumer and the consumer with special dietary needs about the nature of the product.

There has been increasing interest in weight control and the use of 'meal replacements' and portion-controlled prepackaged meals as an aid in achieving such control. When the Regulations were amended in 1978 to specify nutritional, labelling, and advertising requirements for these products, minimum energy levels of at least 225 kilocalories per serving and 900 kilocalories per day were set for meal replacements. The menu plan, that must accompany both meal replacements that are not used as the sole source of nourishment and prepackaged meals, must also provide a minimum of 900 kilocalories per day. The result has been that very low energy diets supplying only 300-400 kilocalories per day cannot be sold in Canada and the recent problems and concerns associated with the use of these products have been avoided.

In 1983, the Health Protection Branch published proposals for comment respecting the nutrition labelling of foods (Health and Welfare Canada, 1983a). These proposals called for a 'core list' of nutrients to be declared whenever a nutrition claim was made for a food and for other nutrients to be declared depending upon the nature of the claim. Over 280 comments including those of the Canadian Home Economics Association were received. They confirmed that consumers were most interested in the energy, sugar, salt, and fat content of foods but the consensus was that the proposals were overly complex and that a simpler scheme should be devised. It has been decided that a group composed of representatives of the food industry, consumers, health professionals, and goverment will work together to develop such a scheme.

Response to Advances in Scientific Knowledge

Since nutrition is a relatively new science, much information on nutrients and on their interactions is still not available. It is very important that a regulatory agency such as the Health Protection Branch be aware of any significant advances that could have an impact on the nutritional quality of the food supply or on the health of Canadians. In areas where the findings are particularly complex and controversial, the Branch may establish a committee of outside experts to advise it on an appropriate course of action. Two areas with important recent developments are mineral availability and dietary fibre.

Addition of minerals to certain foods plays an important role in maintaining or improving nutritional quality. Current research has demonstrated that the absorption of mineral additives depends upon their form. For example, the absorption of the iron powders used to enrich flour, most breakfast cereals, and infant cereals depends upon particle size and shape. The Regulations have recently been amended to require that only powders with small particle size be used for enrichment purposes. Infant cereals are an important source of iron for babies therefore it is essential that the iron be well absorbed.

The role of dietary fibre in human health has attracted the attention of consumers. The food industry has responded to this consumer interest by making claims for the fibre in foods and marketing fibre 'supplements' and foods with an increased fibre content. While there is a great deal of research into the nature and effects of dietary fibre, the field is new and questions remain about definition, methods of analysis, and physiological effects. Recognizing a need to provide guidance in this area, the Health Protection Branch established an expert advisory committee to review the scientific evidence on dietary fibre and to advise on appropriate levels and types of dietary fibre and on criteria for claims (Health and Welfare Canada, 1984). The report of the committee will be published during 1985.

Responses to Advances in Technology

Advances in technology take place as a result of new knowledge, economic factors, and frequently, consumer demand that food prices be kept as low as possible. They result in the development of new and novel food products and new processes. To protect the consumer, regulatory agencies must keep abreast of these changes.

Manufacturers depend on new technology to help them keep food production costs down. For example, the separation of meat from bone by mechanical means was introduced because meat packers could no longer afford to waste the large amounts of meat that could not be manually removed from bone. 'Mechanically separated meats' are used in products not requiring intact meats such as sausages or baby foods. They unavoidably contain small particles and marrow from the crushed bones and this results in increased levels of cholesterol, calcium, and other substances. The Health Protection Branch is studying the need for specific compositional and nutritional requirements for these products since they can constitute a significant portion of certain prepared meats.

To protect the consumer, regulatory agencies must keep abreast of technological change.

An example of a new food product developed in response to rising costs is 'surimi', which is mechanically separated and stabilized fish flesh used to produce shellfish analogues. In this way, a cheaper fish can be used to simulate more expensive shellfish (Lee, 1984). Concerns have been raised about the nutrient content of 'surimi' compared to shellfish. The nutritional significance of this difference is being investigated.

'Novel foods' is the term applied to products that have little or no history of use as human foods, for example proteins or other extracts and concentrates from algae or little known plants. These must be evaluated for their safety and nutritional acceptability before they can be used as food. The Health Protection Branch does not wish to take an overly rigid approach to the evaluation of novel foods but prefers to judge each new or modified food upon its own merits. Thus, an acceptable program for determining the safety and nutritional adequacy of novel foods should include the use of a 'decision tree' that would enable decisions about the extent of testing required to be based upon the degree of novelty of the food, methods of production, etc. Monitoring of the use of these foods would be desirable to detect any allergies or intolerances which could not be detected by tests on experimental animals (International Development Research Center, 1984).

Conclusion

It is important for home economists to realize that the regulatory framework for foods and nutrition is not static. It must evolve to reflect changing societal needs and values. The Health Protection Branch is willing to consider changes consistent with evolving scientific knowledge and practice. Such changes should reflect the interests of the consumer and must be implemented over a period of time to minimize economic disruption to the food producer and manufacturer. ☐

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Clothing as a Cue in Person Perception

A Review

Maureen E. Kummen and Sheila A. Brown

Abstract

Clothing is an important cue in the formation of perceptions about the wearer. This paper reviews research on clothing and person perception and identifies three general areas of study: the effects of clothing on the perception of personal attributes; the effects of clothing cues on behavior; and person/clothing interaction. Important characteristics of clothing and its effect on perception and behavior include its status connotations, its conventionality, its tidiness and its formality. The applications of this research to clothing selection are discussed.

Résumé

Le vêtement est un indice important quand nous formons des perceptions de la personne qui le porte. Cet article repasse la recherche sur la perception du vêtement et de la personne et identifie trois champs d'étude généraux: les effets du vêtement sur la perception des attributs personnels, les effets des indices du vêtement sur le comportement, et les rapports qui existent entre le vêtement et la personne. Parmi les caractéristiques importantes du vêtement et de ses effets sur la perception et le comportement, nous considérons ses indices sur la position sociale, son conventionnalisme, sa propreté, et sa formalité. Les applications de cette recherche sur la sélection de vêtements sont discutées.

The tendency of people to form both initial and lasting impressions of others based on personal characteristics and appearance has long been noted (Allport, 1937; Goffman, 1959). Past experience, often based on only brief exposure to the individual, is used in making judgments (Freedman, Carlsmith, & Sears, 1970). The result may be a stereotype of the individual. Moreover, these judgments are often shared by others in the viewer's social world, that is in groups of people who are "bound together through networks of communications .... and because they share important symbols" (Lindesmith, Straus, & Denzin, 1975, p. 96).

Clothing and Person Perception

Clothing has long been recognized as an important cue in judgments of others, especially on first contact (Flugel 1930). Ryan (1966) and Roach and Eicher (1973) have commented on the ways in which clothing and appearance affect reactions to others. Two aspects of clothing studied by researchers are the effects of clothing on the perception of personal attributes and the effects of clothing on behavior.

Clothing and Perception of Personal Attributes

A number of studies have examined how clothing affects perception of another's personal attributes. A variety of attributes have been studied, including personality, sexual attitudes, social desirability, demographic, and socio-economic status. These studies have involved male and female respondents, frequently university students, and both male and female stimulus figures.

Typically, researchers present stimulus figures in different clothing styles to respondents who rate the figures on a set of scales. Results of such studies have often indicated that people, sharing common symbols, form stereotypes of others based on their attire. Pieces of clothing also have "meaning" themselves. Gibbins and Coney (1981) found that university students made consistent ratings of styles of skirts and tops in terms of attributes like youthfulness, friendliness, and sophistication. For example, short skirts were perceived as more youthful and outgoing than longer skirts, but floor length skirts were seen as most sophisticated.

Gibbins (1969) found considerable agreement among teenage school girls about stimulus persons on both the characteristics of the wearer of a particular outfit and the differences between wearers of various outfits "even for variables that might not be thought to be obvious from one's clothes" (p. 306). When shown photographs of women, from the neck down, the girls distinguished among them by age, occupational level, personality, dating patterns, sexual morals, smoking and drinking habits and, to a lesser extent, educational levels. Compton (1962), Aiken (1963), and Rosenfeld and Plax (1977) have also demonstrated the importance of clothing in judgments of personality.

Mathes and Kempher (1976) studied the relationship between sexual attitudes and clothing. They asked male and female college students to indicate their own sexual attitudes and behavior, how often they wore various clothing styles, and how often they believed sexually liberal and conservative students wore them. Results showed that while respondents believed certain styles (e.g., open shirts for men or halter tops for women) indicated liberal sexual attitudes and behavior in others, only a few women's clothing styles (e.g., cutoffs, going braless) actually were related to reported liberal attitudes and behavior of the respondents themselves. Mathes and Kempher concluded that "people readily accept beliefs (sometimes invalid beliefs) con-

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cerning relationships between appearance and personality traits" (p. 498).

Johnson, Nagasawa, and Peters (1977) found that both male and female college students gave higher sociability ratings to a photographed model when she wore more fashionable clothing. Pinaire-Reed (1979) also found students were more attracted to stimulus figures dressed similarly to themselves and found fashionability of clothing important in these judgments.

Perceptions of ability also vary with clothing. Lapitsky and Smith (1981) found that both interesting and uninteresting essays received higher ratings when the purported author was more attractively dressed. Harris, Ramsey, Sims, and Stevenson (1974) found that female athletes in uniform were perceived as more able than their non-uniformed counterparts.

Several studies have focussed on the effect of the formality or casualness of dress on judgment of personal attributes. Formal daytime dress is usually synonymous with professional attire, for example a suit, dress, or jacket, blouse and skirt for women; while casual dress is usually a skirt or pants worn with a shirt or sweater and casual shoes.

> *People who share common symbols forms stereotypes of others based on their attire.*

Results of studies on perception of personal attributes based on this formal/casual dichotomy have been diverse. Harris et al. (1983) found that responses varied to a woman photographed in five different clothing styles: Formal Skirt, Formal Pants, Casual Skirt, Casual Pants, and Jeans. The Formal Skirt was judged more favorably than the Jeans by both men and women. The woman was judged happier, more successful, feminine, interesting, attractive, and intelligent in the Formal Skirt. DeLong, Salusso-Deonier and Larntz (1983) noted some sex differences in response to business and social attire. Men rated slides of female business wear lower (less liked, fashionable, attractive) and social wear higher than women did. They also perceived pantsuits differently, with women regarding them as more fun and pleasure-oriented than men.

Kerr and Dell (1976) studied the effects of counsellor behavior, formality of clothing, and interview setting on students' judgments of the expertness and attractiveness of counsellors. Male and female students were interviewed in an office or lounge by a female interviewer who was dressed either professionally or casually and who acted out either an expert role (logical order of questioning revealing psychological expertise, structured interview, minimal responsiveness to the student) or an attractive role (high degree of responsiveness, greater concern with student feelings about factual events than with events themselves, less structured interview with positive self-disclosure). After the interviews, the students rated interviewer expertness and attractiveness. Clothing did not affect perceived attractiveness but it did interact with interviewer role to affect perceived expertness. Kerr and Dell concluded that behavior in such an interpersonal situation may be more important than variables such as dress or setting.

Littrell, Littrell and Kuznik (1981) also investigated the relationship of counsellors' dress to clients' evaluations of them. They showed Caucasian and North American Indian high school students slides of male and female high school counsellors wearing six different clothing styles. Students indicated their willingness to talk to a given counsellor about personal and school problems and their post-graduation plans. The counsellor wearing the formal, conservative, out-of-date costume was the least preferred by both groups. However, whereas the Indians preferred counsellors wearing fashionable, co-ordinated, up-to-date attire, Caucasians preferred counsellors dressed in young, casual attire. Littrell et al. concluded that the formality of dress alone could not be used to explain preferences. They suggested that how up-to-date and how new the clothing was would be worth studying. Clearly, cultural influences on perception are also worthy of further study.

Noesjirwan and Crawford (1982) had male college students judge a male stimulus person using photographs of the male dressed in four outfits, ranging in formality from a business suit to hippie attire (faded patched jeans, Indian shirt, beads, and leather sandals). The business suit and a slacks outfit were judged more usual, polite, conservative, and different from what the respondent himself would wear, but the slacks were rated as safer, sharper, and more "in" than the business suit. The hippie costume was rated as more false, weak, unusual, noticeable, and radical than a shorts and thongs outfit. Differences in perceptions were found among students from different faculties. Business students perceived the slacks and especially the suit as indicating a conscientious, hardworking attitude towards work and study; whereas social science students perceived these costumes as reflecting an acceptance of the status quo and conformity to conservative social and political attitudes. Noesjirwan and Crawford concluded that the meanings given to dress derive partly from its nature and partly from the interpretive framework used by a particular social group, reinforcing the idea of share symbols.

Miller (1982) investigated whether the clothing of men with a visible physical impairment affected perceptions of their desirability as friends. Actors were videotaped conversing with another actor, with either patterned clothing or a solid color suit and tie, and with or without a hearing aid. Female college students rated actors without hearing aids and actors wearing solid-colored clothing as more desirable as friends. The patterned clothing also significantly reduced the friendship ratings given the hearing-impaired actors, and actors with both a hearing aid and patterned clothing were judged less desirable as friends than the others. Miller's results suggest clothing could lessen the impact of some types of physical impairment on aspects of impression formation. Indeed, Kummen (1984), found that fashionably dressed obese women were perceived as belonging to a higher social class and as being more educated, more sophisticated, and more physically attractive than unfashionably dressed obese women.

Clothing and Behavior

Researchers and their confederates (experimental assistants) have used behaviors like petition signing, survey participation, and helping to gauge people's responses to clothing, including high- and low-status clothing, conventional and deviant attire, neat and untidy dress, and formal and casual dress.

High- and low-status clothing. Lefkowitz, Blake, and Mouton (1955) used a male confederate dressed in either high-status (suit, shined shoes, white shirt, tie, and straw hat) or low-status attire (worn shoes, soiled and patched trousers, and an unpressed denim shirt) to determine whether subjects would follow the confederate's example, crossing a street against a do-not-walk signal. They found that more pedestrians crossed against the signal after the high-status than the low-status person. Harris (1974) found confederates in high-status clothing provoked less aggressive reactions, when cutting into a line, than those dressed in lower status, unconventional attire.

Bickman (1971) found that people's honesty was dependent on the perceived social status of the person to whom they were reacting. When asked by the confederates to return dimes left in phone booths, only 38% of the subjects complied with those in low-status attire, compared with 78% who returned the dime to the person in high-status attire. Neither the sex of the confederates or the subjects nor the race, age, or status of the subjects was related to their honesty.

In Bouska and Beatty's (1978) study of the effects of status, presence of conversation, and interaction distance on the permeability of group boundaries; a businessman's standard attire of suit and tie and a Catholic priest's black suit and white collar were used as high-status clothing. A college student's ensemble of blue jeans and T-shirt was used as low-status attire. A casually dressed confederate conversed with another confederate wearing one of the costumes described above. Shoppers were watched to see if they would walk around or between the confederates positioned 137-cm (54-inches) from each other — a distance beyond the standard 107-cm (42-inch) personal zone boundary. When one member of the dyad was dressed either as a priest or businessman, pedestrians were reluctant to pass between the two; while significantly fewer pedestrians detoured around the conversing student dyad. Bouska and Beatty speculated that the student dyad was seen to be less deserving of privacy and courtesy than were the "higher status" participants.

Conventional and deviant clothing. The appearance of hippies on the social scene of the 1960s and 1970s provided ample opportunity for researchers to study response to various types of dress. Suedfeld, Bochner, and Matas (1971) found that the reaction of peace-march participants, most of whom were young and unconventionally dressed, differed according to the kind of dress worn by female anti-war petitioners. The petitioner dressed as a hippie gathered more signatures than her counterpart wearing "straight" dress. More people signed the "hippie's" petition without reading it, and more unsolicited signatures were attracted. The "straight" petitioner, on the other hand, had a higher proportion of reasoned refusals. Suedfeld et al. speculated that the peace marchers felt more obliged to explain their noncompliance to someone who appeared, by her attire, to be an outsider, rather than to someone who appeared to be a member of the in-group.

Bryant (1975), using a similar methodology to Suedfeld et al. found that subjects were more influenced by dress when the petition was neutral in tone. Bryant suggested that appearance is only a minor cue in petition signing and that clothing would only affect the behavior of subjects when they had little belief in the petition. He also suggested that this was probably true for the results of Suedfeld et al. because the petition they used had little meaning for the subjects.

Raymond and Unger (1972) had two young adult male confederates ask subjects leaving shopping centres for change for a dime. One confederate was black and the other white; they wore conventional dress or deviant dress. White subjects were affected by the clothing of both confederates; they co-operated less with both deviants than with their conventional counterparts. Black subjects, on the other hand, treated the black deviant and his conventional counterpart alike but helped the white deviant less often than his conventional counterpart. Raymond and Unger suggested that white subjects may have perceived the deviants, regardless of race, as possessing beliefs and values different from their own, while the conventional confederates, regardless of race, may have been perceived as having values congruent with their own. The black subjects may have believed that both conventional confederates and the black deviant had similar values to theirs. Emswiller, Deaux, and Willits (1971) also found that people responded more favorably to those dressed similarly to themselves.

Schiavo, Sherlock, and Wicklund (1974) found that middle-aged white women were less likely to help a college-age confederate dressed in hippie attire with directions to a restaurant than one in conventional dress. Schiavo et al. suggested that these results, as well as Raymond and Unger's, indicated that clothing influenced perceptions of similarity and thus mediated helping behavior.

The studies described have indicated that clothing affected the degree of co-operation which confederates received in tasks like petition signing, and obtaining change and directions. Kroll and Moren (1977), however, found that requests for help in a library by a college-age female were treated similarly whether she was dressed as a deviant or in casual student attire. Female librarians were found to be equally friendly and helpful to both. Kroll and Moren speculated that the differences in attire may not have been great enough to produce discrepancies in behavior and/or the librarians' role may not have allowed them to discriminate.

Smartness and tidiness of dress. A female experimenter (Lambert, 1972), posing as a market research investigator, approached lone adult males and females. Overall, subjects were more willing to answer questions when she was dressed smartly than when she was untidily dressed, and this was especially true of older people.

This experiment was repeated by Judd, Bull, and Gahagan (1975) using a male confederate in a similar setting. While the smartness or untidiness of the confederate's dress did not affect the willingness of male subjects to participate in a survey, it did affect the participation of females. Older males refused to participate and younger men agreed to participate regardless of dress. On the other hand, older and younger women were more inclined to co-operate with the smartly dressed confederate than with his untidy counterpart.

Harris and Baudin (1973) found that well-dressed male and female confederates were more likely to receive change for a dime at a fair than were their sloppily dressed counterparts.

Clothing can be selected to create a desired perception of the wearer and to influence behavior towards the wearer.

Kleinke (1977) also found that both men and women approached at an airport by a neatly dressed female confederate for the loan of a dime, were more likely to give dimes to her than her sloppily dressed counterpart. Kleinke speculated that whereas the neatly dressed confederate may have been perceived as having a legitimate need for a dime, the sloppy confederate was more likely to be perceived as a panhandler.

Formal and casual dress. As noted previously, studies of the effects of the formality of dress on perception of personal attributes have yielded inconclusive results. This is also true of its effect on behavior. Harris et al. (1983) found no differences in subjects' responses to formally and casually dressed confederates. Female confederates wearing a Formal, Casual or Jean ensemble described previously, approached shoppers, asking them to fill in a questionnaire. Although confederates wearing the Formal Skirt ensemble had the highest rate of compliance, differences among the clothing styles were not significant. The findings of the field study part of this experiment therefore contradicted the results of the paper and pencil part discussed earlier. Harris suggested that clothing may be less important a factor in situations where other information about a person is available.

Person/Clothing Interaction

The interactive effects of person and clothing have received little attention. Flugel (1930) thought that people were more apt to perceive and react to the face, hands, and clothing of others than to their bodies. Laswell and Parshall (1961), however found that college students made consistent judgments of the social class of 25- to 65-year-old men from photographs, from both complete pictures or only the neck down, but not from the men's heads only. Respondents reported that the men's clothing and accessories influenced their judgments, although posture and hands were also mentioned.

Neilsen and Kernaleguen (1976) measured the effect of both facial attractiveness and clothing on perception of physical attractiveness as well as perceived social desirability and expectations of social and professional happiness. Facial attractiveness significantly affected perception of the female stimulus figures. The attractiveness of the clothed bodies of the stimulus figures on the other hand, influenced only perceptions of bourgeois orientation (unlikely to sympathize with oppressed people, belief in money and wealth as primary ingredients for a happy life, likely to be snobbish and a social status seeker). Regardless of the attractiveness of the clothed body, the high facial attractiveness was judged most socially desirable, and low facial attractiveness least desirable. Expectations of social and professional happiness also increased with facial attractiveness, but only for the highly attractive body. This accords with Ryan's (1966) belief that clothing influences perception of personality traits although perhaps not to the same extent as an individual's features or facial expression.

Conner, Peters, and Nagasawa (1975) were less convinced about the superior influence of clothing over person as a perceptual cue. In their study, "person" was defined as the part of physical appearance not projected by clothing. Three college-age female models were chosen, through pretesting, as ideal types of athletic, social, and intellectual persons. Each model was asked to choose one outfit from her wardrobe that best represented her "type," and ratings were made by other female college students of photographs of each stimulus person dressed in each costume. Results indicated that the athletic person gave the strongest athletic impression (robust, rugged, athletic), regardless of costume. However, each model was rated as the most social (warm, sociable, friendly) when she wore the costume congruent with her typing. Neither person or costume had any influence on intellectual impression (intelligent, theoretical, deep). Conner et al. concluded that while costume changed the strength of the initial impression of a person, "the degree of influence which person and costume exerted on the formation of first impressions differed with the nature of the impression variable" (p. 40). Their findings lend support to Ryan's view that the importance of clothing in person perception varies with the personality characteristics being judged.

Conclusions and Implications

This review has shown that people make consistent judgments of others based on clothing. Clothing affects both the attributions made of individuals and the resulting behavior that is directed to them. Stereotypes have emerged of people based on various dimensions of their clothing, especially in first impression situations. Various subgroups, too, have reacted to the same stimulus figures in the same way, indicating that the meanings of clothing cues can be shared in a social world.

Thus, clothing can be selected to create a desired perception of the wearer and to influence behavior towards the wearer. The formality, conventionality, neatness, and status connotation of clothing can all be used to influence the impression created. The impression influences behavior and may thus affect social interactions, job success, business transactions and so on.

The influence of clothing on person perception is not limited to the average figure or the able-bodied. Initial research has shown that clothing can also help offset negative perceptions or stereotypes of individuals based on physical handicaps (Miller, 1982) and obesity (Kummen, 1984). Further research is obviously needed to understand the implications of clothing manipulation on the perception of these groups of people. ☐

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Gasoline Sniffing

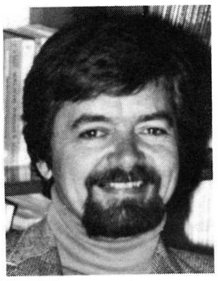
Gordon E. Barnes

Abstract

Gasoline sniffing represents one of the most serious forms of drug use in terms of risk to the user. Research on the prevalence of gasoline sniffing indicates that gasoline sniffing has a fairly low prevalence except for certain pockets of heavy use which seem to occur primarily in low social assets, low acculturation Indian communities. Users themselves tend to come from disorganized family backgrounds. Parental drug use and peer influence to use solvents is common. Users also tend to have lower self-concepts. Although gasoline sniffing still poses a fairly serious and potentially explosive social problem in Canada, relatively little seems to be happening in the way of intervention in this field.

Résumé

Le reniflement des vapeurs de l'essence est une des formes les plus sérieuses de l'abus des drogues en ce qui concerne les risques pour celui qui le fait. Les recherches sur la fréquence du reniflement des vapeurs de l'essence indiquent que ce reniflement a une fréquence assez basse sauf pour certains petits zones d'usage sérieux qui semblent avoir lieu principalement dans des communautés indiennes où les avantages sociaux et l'acculturation sont à un niveau minime. Les drogués eux-même ont tendance de venir des familles de structure très peu stable. L'emploi des stupéfiants par les parents et l'influence de leurs copains à employer les solvants ainsi est commun. Les drogués ont aussi tendance à avoir un concept de soi très bas. Quoique le reniflement des vapeurs de l'essence pose toujours un problème social assez sérieux et potentiellement explosif, il semble y avoir très peu d'intervention dans ce domaine.



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Gasoline sniffing represents one of the most serious drug use problems in terms of the risk to the user. Numerous deaths have been attributed to solvent abuse (Bass, 1970) and gasoline may be one of the most dangerous substances in use by sniffers. Gasoline is a mixture of hydrocarbons including paraffins, olefins, napthenes, and aromatics. Certain common forms of gasoline also contain tetraethyl lead. Gasoline is particularly dangerous because of the presence of tetraethyl lead and the aromatic hydrocarbon, benzene. Tetraethyl lead has been shown to cause lead poisoning (Angle & Eade, 1975; Boeckx, Postl & Coodin, 1977; Lynn, 1975), while benzene can have potentially destructive effects on bone marrow cells (Nurcombe, Bianchi, Money & Cawte, 1970). Several deaths have been attributed to gasoline sniffing (Angle & Eade, 1975; Boeckx et al., 1977; Ferguson, 1975; Nurcombe et al., 1970; Sokol, 1981) with the mechanism being respiratory failure resulting from central nervous system depression and respiratory irritation and bronchiolar obstruction (Nurcombe et al., 1970).

Prevalence

Not much is known about the actual extent of gasoline sniffing. Surveys on the extent of sniffing seem to focus on particular high risk populations. Angle and Eade (1975) conducted surveys in two communities in Quebec where sniffing had been reported, Great Whale River and Manouane. In Great Whale River, Angle and Eade (1975) found that 62% of the population under 20 and 53% over 20 admitted sniffing gasoline.

A somewhat different story emerged from the survey conducted in Manouane. Manouane is primarily a native community and is also located in northern Quebec. In Manouane, no gasoline sniffing was detected, although this practice has been quite common at one time. Apparently, a scare resulting from a 1972 fatality due to sniffing in the community had produced a dramatic drop in sniffing. Angle and Eade (1975) noted, however, that residents believed that Manouane was atypical and that the gasoline sniffing problem was quite serious in several other Indian communities.

Similar results to those reported by Angle and Eade, in their Great Whale River study, were reported by Lynn (1975) in a study of sniffing in Poplar Hill, Ontario. Lynn found that of 50 Ojibwa Indians surveyed 23 out of 50 were occasional users and 11 out of 50 were chronic users of gasoline. High lead levels were also observed in chronic and occasional users of gasoline.

Gasoline sniffing was also found to be a fairly common practice in a New Mexico, Pueblo Indian village (Kaufman, 1973). Kaufman administered questionnaires to 72 children enrolled in elementary school and found that 72% reported that they had sniffed gasoline for its effect at least once.

Gasoline sniffing is not a problem that occurs only in North America. Nurcombe et al. (1970) reported that sniffing gasoline is a common practice among the aboriginal people of the Ecuto Islands in Australia. Although Nurcombe et al. did not report the actual prevalence of this practice, their paper indicated that sniffing must be fairly common. Groups of as many as 20 youngsters at one time were observed gathering at the petrol pump.

More recently, research conducted by Boeckx et al. (1977) showed that the problem of gasoline sniffing was fairly widespread in the community of Shamattawa, Manitoba, Canada with observer estimates suggesting over 50% of the children were involved in sniffing. Clinical signs of lead poisoning associated with gasoline sniffing, including decreased delta-aminolevulinic dehydrase (ALAD) activity, supported these observations. Blood tests conducted by Boeckx et al. (1977) in the community of Little Grand Rapids suggested that this problem was not restricted to Shamattawa alone, but might be fairly widespread throughout the province of Manitoba.

In my own research on the prevalence of gasoline sniffing in Manitoba (Barnes, 1980), I examined the prevalence of gasoline sniffing in a variety of Manitoba communities ranging from low acculturation native communities (Berens River, Easterville) through mixed Indian, white and Metis communities (Gypsumville, Waterhen), to high acculturation Indian (Peguis) and white (Gillam) communities.

In this research, questionnaires were administered during the fall and winter of 1977-78 school term. The sample included 334 Indians, 92 Metis and 197 non-Indian students. Students ranged in age from 10 to 19 years and in grades from 4 through 10. There were 316 males and 307 females for a total of 623 respondents. The prevalence of sniffing reported in this sample is summarized in Table 1. The heaviest prevalence of gasoline sniffing was reported in the community of Easterville. This community is fairly low on both acculturation and social assets. The community has an additional problem in that residents were forced to relocate on account of a hydro project several years ago. At the time of the survey, community residents were still having problems adjusting to the new location which was viewed as being less satisfactory than the "old post." Low rates of solvent use were reported in several communities including the high social assets and high acculturation Indian community of Peguis. When the frequency of use for gasoline sniffing was examined, results showed that most gasoline sniffers (14/19) reported sniffing only once/month or less.

Table 1. Number of Sniffers Found in Communities Studied

			Sniffers			
Community	Date	Total	Gas or Gas & Other Solvents	Other Solvents Only	Total	%
Berens River[1]	Fall 1977	66	3	4	7	11
Gillam[2]	Winter 1978	175	1	5	6	3
Easterville[3]	Winter 1978	122	12	2	14	11
Peguis[4]	Winter 1978	158	1	1	2	1
Gypsumville[5]	Winter 1978	46	0	0	0	0
Waterhen[6]	Winter 1978					
Waterhen		16	0	0	0	0
Skownan		19	1	1	2	11
Mallard		18	1	1	2	11

Source: Barnes, 1980

[1] A Saulteaux community, 180 miles north of Winnipeg (approximate population = 988).

[2] A northern white community, 453 miles north of Winnipeg (approximate population = 2,500).

[3] A Cree community, 216 miles northeast of Winnipeg (approximate population = 565).

[4] A mixed Saulteaux and Cree community, 120 miles north of Winnipeg (approximate population = 1208).

[5] An unincorporated community, approximately 167 miles north of Winnipeg.

[6] A small community, 170 miles northeast of Winnipeg. The school services the white community of Waterhen (approximate population = 152), the Saulteaux community of Skownan (approximate population = 293), and Metis community at Mallard (approximate population = 196).

Characteristics of Users

Case Histories. Most of the literature available on gasoline sniffing is in the form of case histories. My analysis of these 30 case histories (Barnes, 1980) revealed the following picture of the gasoline sniffer. Of the 30 case histories, 27 were male and 3 were female with an average age of 15.5 years. Most of the cases fell in the age range 11 to 19, although there is one notable exception, a woman 41 years of age reported on by Law and Nelson (1968). The average length of use for these cases when this information was reported was 5.2 years. Most of the cases seemed to come from rural areas suggesting that the availability of gasoline and/or the lack of availability of alternatives such as marijuana could be an important factor. Sniffers generally tended to come from fairly large families (average of 4 children per family). The home situation of the sniffers tended to be disorganized or unhappy with eight case histories reporting broken homes (Clinger & Johnson, 1951; Durden & Chipman, 1967; Faucett & Jensen, 1952; Gold, 1963; Lawton & Malmquist, 1961; Nitsche & Robinson, 1959). In several case histories parental alcoholism seems to have played a role (Boeckx et al., 1977; Brown, 1968; Easson, 1962; Lawton & Malmquist, 1961). The incidence of delinquent acts seems to be fairly high among sniffers with thefts being the most frequently reported type of delinquent act (Bartlett & Tapia, 1966; Black, 1967; Durden & Chipman, 1967; Gold, 1963; Lawton & Malmquist, 1961; Nurcombe et al., 1970; Oldham, 1961; Tolan & Lingl, 1964).

In the case histories that have reported on the IQ of sniffers the range that has been reported has been from 44 to 120. The average IQ reported has been 94. This average is likely not below normal for people coming from the typical sniffer background. Academic performance by sniffers, however, tends to be poor (Bethell, 1965; Black, 1967; Brown, 1968; Carrol & Abel, 1973; Durden & Chipman, 1967; Edwards, 1960; Faucett & Jensen, 1952; Gold, 1963; Lawton & Malmquist, 1961; Nitsche & Robinson, 1959).

In those case histories where personality characteristics of sniffers are mentioned, the most frequently observed characteristics have been depression (Brown, 1968; Faucett & Jensen, 1952; Lawton & Malmquist, 1961) and anxiety (Brown, 1968; Easson, 1962; Edwards, 1960; Faucett & Jensen, 1952; Gold, 1963; Law & Nelson, 1968; Lawton & Malmquist, 1961; Neal & Thomas, 1974; Tolan & Lingl, 1964). Introversion or shyness on the part of sniffers has also been a frequently observed characteristic (Black, 1967; Brown, 1968; Clinger & Johnson, 1951; Easson, 1962; Neal & Thomas, 1974).

Surveys. Surveys that have been conducted to date on gasoline sniffing have for the most part confirmed the findings in the case histories. Evidence of extensive gasoline sniffing has been found in populations where the social assets are extremely low. These populations include Pueblo Indians (Kaufman, 1973), Australian aboriginal tribes (Nurcombe et al., 1970), and Canadian Indians (Angle & Eade, 1975; Boeckx et al., 1977; Lynn, 1975). My own research supports these findings. Highest rates of sniffing were observed in the poorest communities while sniffing was virtually absent in the relatively richer communities (e.g., Peguis). Within the overall sample sniffers tended to come from homes that were lower on a variety of social assets including: more broken homes, no running water, not enough money for clothes and food, and poorer mother's health.

Acculturative stress would seem to be an important factor in all of the communities where extensive gasoline sniffing has been reported. Acculturative stress is greatest when some contact with the white culture has been made but acculturation has only partially occurred. Angle and Eade (1975) have suggested that gasoline sniffing is not a problem in communities where there is little or no contact with white society, while heavy abuse occurs where cultural changes are occurring. Nurcombe et al. (1970) have also suggested that cultural changes are important sources of anxiety among the aboriginal tribes of Australia. In Manitoba, this seems to be true as well. In communities such as Peguis, which were already highly acculturated, gasoline sniffing did not occur. In the communities undergoing rapid acculturation gasoline sniffing was more prevalent. Four out of the five acculturation variables used in the Manitoba study were significantly associated with gasoline sniffing. Gasoline sniffers tended to come from homes where the language spoken at home was a native language, where the mothers had low education, where there was no television, and the father did not work for wages regularly.

Peer and sibling influence seems to be another important factor in gasoline sniffing. Kaufman (1973) reported that 93% of his sniffers reported sniffing with others. Nurcombe et al. (1970) also reported group gatherings around the petrol pump. Social sniffing has also been found in Canadian Indian groups (Angle & Eade, 1975) and peer influence has been suggested as a possible important causal variable (Scott, 1976) in gasoline sniffing. In my Manitoba solvent abuse survey (Barnes, 1980), peer influence also played an important role. Gasoline sniffers reported that they had more friends who sniffed, more friends that encouraged them to sniff, and more often said they had other family members who sniffed, than non-sniffers.

Parental use of alcohol seems to be a common practice in the communities where gasoline sniffing occurs but Kaufman (1973) did not find the incidence of alcoholism to be any greater in the families of sniffers than in the families of non-sniffers. In the Manitoba survey (Barnes, 1980) parental drug use was significantly correlated with adolescent use of gasoline.

In the gasoline sniffing literature, several comments concerning the possible psychological correlates of gasoline sniffing have been made but very little hard evidence is available. Nurcombe et al. (1970) found that anxiety was high among gasoline sniffers. Angle and Eade (1975), Nurcombe et al. (1970) and Scott (1976) have suggested that boredom could be a principal cause of sniffing. Very little opportunity for recreation is available in the poor native communities and traditional sources of stimulation are generally not available. Nurcombe et al. have suggested that this situation creates a stimulus hunger which in turn could be an important causal factor in gasoline sniffing. Alienation from parents has also been suggested as a factor in gasoline sniffing (Scott, 1976). In the Manitoba study (Barnes, 1980), a variety of psychological measures were pre-tested for possible inclusion in the study. Most of these tests proved to be unsatisfactory for use in native samples. The one test which proved satisfactory in terms of reliability and validity for use in this sample was a measure of school self-acceptance (Instructional Objectives Exchange, 1972). In the low social assets native sample, where most of the sniffing occurred, school self-acceptance proved to be a significant predictor of gasoline sniffing. Students with low school self-acceptance reported more gasoline sniffing.

Conclusions

Although the problem of gasoline sniffing does not seem to be a widespread problem, periodic epidemics of use seem to occur in low social assets, low acculturation native communities. Since the completion of the Manitoba research, problems have continued to surface in communities of this type in Manitoba and Northern Ontario.

Research to date on the problems of gasoline sniffing suggests that many of the predictors which predict other forms of drug use, such as alcohol use, also predict gasoline sniffing. Gasoline sniffing, like other forms of drug use, seems to be a function of complex interrelationships between the sociocultural, socialization and personality systems. Intervention strategies must take these three different levels into account. To a certain extent the interventions attempted to date in Manitoba have already done this. It was realized early on in the Shamattawa experience that attempts to deal with adolescent gasoline sniffing would be futile without also considering the problem of parental drug use. In Berens River attemps were made to impact on the solvent abuse problem by the incorporation of a program directed at improving school self-acceptance. In this program students were given an opportunity to work outside the school in different work settings (stores, airports, logging camps) as part of the regular school curriculum in the hope that they would experience positive reinforcement in these roles, that they normally were not experiencing in the school system. Through these experiences it was hoped that self concepts would be raised and the need for using drugs reduced. Although this program showed promise in its initial stages, it had to be dropped when the program originator left the community and her replacement could not keep the program going.

At the present time there is very little work being done in Canada to deal with this potentially explosive issue. Although there are some alcohol and drug use treatment and prevention programs that might be useful in this area, no attempts are being made to systematically introduce and evaluate the effectiveness of these approaches when applied to the field of solvent abuse. ☐

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Nutrition Education

Judith Lawn

New Approaches for Indian and Inuit Communities

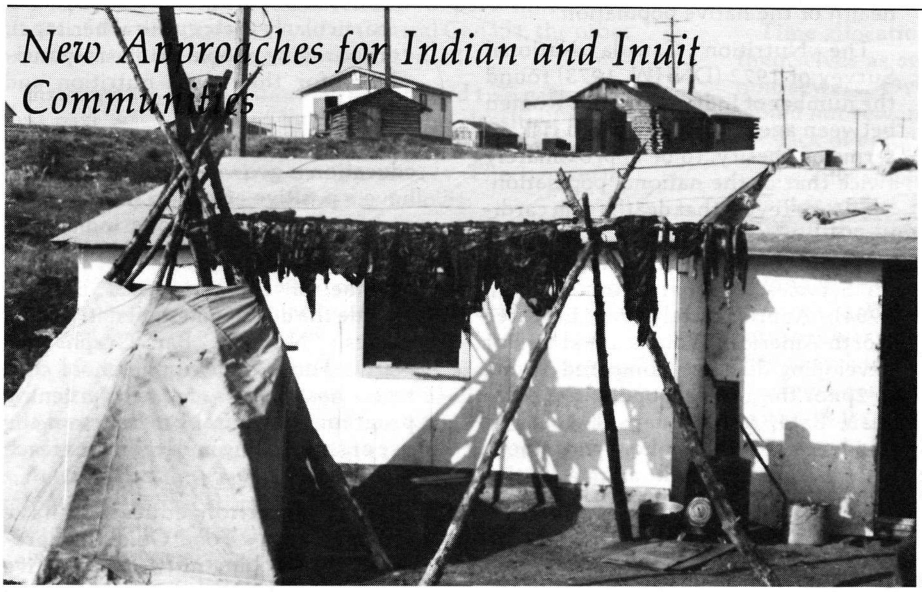

Photo courtesy Medical Services Branch

Abstract

Malnutrition is a relatively recent phenomenon among North American Indian and Inuit people. Changing dietary patterns and lifestyles have had a major impact on the health of this group, resulting in an alarming incidence of obesity, dental caries, cardiovascular disease, and diabetes. Recent nutrition education programs, developed with community involvement, to reinforce traditional values are beginning to create a greater awareness of the relationship between diet and health resulting in improved eating practices.

Résumé

La sous-alimentation est un phénomène relativement récent parmi les Indiens et les Inuit de l'Amérique du nord. Les pratiques alimentaires et les modes de vie changeantes ont eu un impact profond sur la santé de ce groupe, menant à une manifestation alarmante d'obésité, de carie dentaire, de maladie cardio-vasculaire, et de diabète. Des programmes récents d'éducation en nutrition qui renforcent les valeurs traditionnels et qui sont développés avec l'implication de la communauté commencent à créer une plus grande conscience des rapports qui existent entre l'alimentation et la santé, et aboutissent à des pratiques alimentaires améliorées.

In her book, *Indian Legends of the Pacific Northwest* Ella Clark (1953) recounts the story of "Coyote" the mythical figure of many western North American Indian tribes. After Coyote brought the salmon,

> He planted the trees, so that when the new people, the Indians, should come, they could burn wood and keep themselves warm. He planted huckelberries in the mountains. "People must climb to get the berries," he said. "It will not be good for them to get all food easily. They will become lazy." He planted strawberries and serviceberry bushes. He planted camas, kouse, and other roots, so that there would be all kinds of food for the new people. . . . [Coyote showed the people how to build cedar canoes and catch fish and] taught the Indians that salmon must always be kept clean. "If you do not keep them clean after you have caught them," Coyote said, "they will be ashamed and not come up the river any more. And you must never cook any more than you can eat. If you cook three salmon when you are able to eat only half of one, the salmon will be ashamed and will refuse to enter your river." (p. 98)

Judith Lawn holds a BHEc from the University of Ottawa and an MSc from the University of Manitoba. She has spent a number of years living in Indian communities and working in the field of nutrition and adult education. Formerly Director of the Consumer Section of the Ontario Food Council, Ontario Ministry of Agriculture and Food; and Assistant Professor, Department of Food and Nutrition, Faculty of Home Economics, University of Alberta, she is currently a nutrition consultant.

Within this ancient legend, passed down from generation to generation, lie many values that are central to the Indian and Inuit culture — values which still guide their behavior in today's society. Through legends, the elders taught about the interrelationship between people and nature, the respect that must be shown to animal and plant life, the need for harmony and balance, the wise use of food, the balance between our energy intake and output, the need for variety in the foods eaten, and the importance of cleanliness.

To the Indian and Inuit of long ago health was not just freedom from disease — but a healthy body, mind, and spirit.

Traditional Diets

Today food habits have changed radically — many traditional foods are no longer available and new foods are available in grocery stores. Changing lifestyles leave little time for gathering and preserving favorite foods. While some native people continue to enjoy some traditional foods, many rely on store-bought foods for the major portion of their diet. This has meant a greater consumption of foods high in fat and carbohydrate and a lower intake of vitamins and minerals. (Department of National Health and Welfare, DNHW, 1973).

Anthropological research and historical records reveal that the North American Indian and Inuit, prior to contact with Europeans, enjoyed remarkable health. Dental caries, and infectious and chronic diseases were virtually non-existent (Brothwell & Sandison, 1969; Heinbecker & Irvine-Jones, 1982; Jenness, 1977; Klatzky, 1948). Their physical strength, endurance, and ability to recover from wounds was far superior to their European counterparts. (Heinbecker & Irvine-Jones, 1982).

The traditional diet consisted primarily of wild game, fish, organ meats, berries, wild greens, roots, and nuts, varying according to the region and the local foods available. South of the Great Lakes, Indians cultivated more than 79 different varieties of plants. Their knowledge of agricultural practices such as cross-breeding, irrigation, etc. was among the most advanced in the world. In southern Ontario and Quebec, corn, beans, and squash were the mainstay of the diet. The importance of "The Three Sisters," as these vegetables were known, has been depicted in many Indian paintings and sculptures. While the Indians of the northern plains did not have the same variety of fruits and vegetables, they relied on berries, wild greens, and roots to supplement their diet of game and fish. In the Arctic, valuable vitamins and minerals were obtained through the use of raw meat and fish, organ meats, and the stomach contents of caribou which contained lichen and moss. Along the west coast, fish, shellfish, seaweed, berries, roots, nuts, wild greens, and oologan grease were the principal foods eaten. Along the Atlantic, fish, shellfish, and game were eaten along with local berries, corn, wild plants, and seaweed.

The traditional diet was low in fat, high in protein, and generally rich in essential vitamins and minerals. The carbohydrate content of the diet was very low, consisting mostly of complex carbohydrates such as glycogen and starch. Sweeteners (e.g., maple or birch sap) were used sparingly. Instead of sugar, berries were added as a natural flavoring for pemmican or bannock and gathered in the spring as a tonic (Hutchens, 1983).

Impact of Change

Changing dietary patterns and lifestyles have had a major impact on the health of the native population.

The Nutrition Canada National Survey of 1972 (DNHW, 1973) found the number of Indian and Inuit women between age 40 and 54 at high risk, in terms of obesity, to be approximately twice that of the national population. Statistics reveal that death from cardiovascular disease among Indian people is almost twice the national rate (Medical Services, personal communication, 1984). Approximately one in three North American Indians are at risk of developing diabetes, compared to one in 20 for the general population (Brosseau, Bata, & Marquart, 1984). The incidence of fetal alcohol syndrome is also alarmingly high among native children (McLeod, 1983). Upper and lower respiratory infections and dental caries are also major health concerns for this group (Schaeffer, 1971).

Today, there is a movement toward native control over education, health, and social and economic development as well as a concerted effort by native people to rediscover the traditional values and to reinterpret them in light of today's society. New awareness of the vital relationship between diet, exercise, and health has led many native people to become actively involved in an effort to reestablish the balance that existed among their forefathers.

Health was not just freedom from disease —
but a healthy body, mind, and spirit.

Nutrition Education Programs

The revived interest in nutrition and health can be felt in many communities across Canada. Since the employment of regional nutritionists by the Medical Services Branch of Health and Welfare Canada and the involvement of other Canadian nutritionists, a number of innovative nutrition education programs have been undertaken at the community level.

These programs have taken many forms but all share the common principles of:

- responding to the perceived needs of the people at the community level,
- involving native people in their design and implementation,
- recognizing and reinforcing those values of importance to native people (particularly their cultural heritage),
- encouraging people to take responsibility for their own nutrition and health.

This approach explains why nutrition education is growing and beginning to have a positive effect on the attitudes and food practices among Indian and Inuit people.

Some of the successful projects include the development of native food guides, "Nutrient Bar Graphs for Native Foods," nutrition school contests, health fairs, tunnel gardening programs, botanical gardens, and the use of storytelling and legends to teach nutrition.

Many nutrition educators have found Canada's Food Guide inappropriate for teaching nutrition to native groups, particularly in the north where land foods are still used. An Objibway Cree Food Guide was developed through collaboration of the elders, nurses, people from the communities in the Treaty Nine region of northern Ontario, and the regional nutritionist for Medical Services. It has been illustrated and translated into the local dialect. The food guide represents interviews with more than 250 elders concerning traditional food habits and presents a viable and culturally appropriate alternative to Canada's Food Guide. The food guide is now being used by community health representatives and nurses in their nutrition education programs. In British Columbia, the Nutrition Liaison Committee, composed of community health representatives and the regional nutritionists for the Pacific Region of the Medical Services Branch has developed separate food guides for the coastal and interior peoples. The interest in this approach continues to grow as other native groups search for a more effective way of expressing their traditional customs.

The "Nutrient Bar Graphs for Native Food," were published by Medical Services in 1983. After consultation with the regional nutritionists, nurses, and community health representatives the foods listed were expanded to include data for 60 native foods. The bar graphs illustrate the percentage contribution of energy and ten essential nutrients of the foods to the Recommended Nutrient Intake for an adolescent female. The bar graphs are very effective in a number of nutrition education programs including diabetic counselling, prenatal classes, and weight control. Plans are underway to develop additional resource material to accompany the bar graphs.

Within the school system, Gail Marchessault (regional nutritionist, Medical Services, Manitoba) and Marjorie Schurman (former nutritionist with the Bay) initiated a number of successful nutrition awareness programs. In 1981-82 they co-sponsored a "Nutrition Poster Contest" among Manitoba schools. The delightful posters created by the 153 finalists from 35 communities provided an excellent opportunity for children in Grades 1 to 9 to express their cultural heritage and nutrition knowledge. The program has been continued during 1983 and 1984 with a storytelling contest and a "moose soup" contest.

In Northern Manitoba the joint efforts of the Manitoba Department of Agriculture and the Manitoba Department of Education have resulted in an outstanding nutrition success story. In an attempt to improve the nutritional status and self sufficiency of people in northern communities, the Department of Agriculture initiated a research program to investigate northern gardening. Using the tunnel-gardening concept (a simple greenhouse constructed of plastic stretched over electrical conduit pipes and secured to a wooden base) and special seed varieties, the program demonstrated that many frost-sensitive vegetables could be grown with considerable success. Financial and technical assistance was provided over a 3-year period to any community interested in participating in the project. Local women were trained in nutrition and gardening by the Frontier School Division, Manitoba Department of Education. Employed as nutrition health advisors these women work in the schools and community to promote better nutrition and health. Today there are more than 20 communities participating, 17 women have been hired as nutrition health advisers and they are producing bumper crops of vegetables such as tomatoes, chard, corn, and carrots as far north as the 58th parallel. People are eating a greater variety of vegetables. They have learned new skills and the annual harvest fairs are an occasion for pride in their achievements. There are more employment opportunities and commercial vegetable production is a possibility.

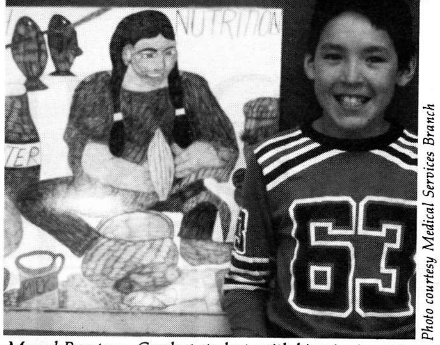

Photo courtesy Medical Services Branch

Marcel Pronteau, Grade 4 student, with his winning entry in the nutrition poster contest.

In British Columbia, Harriet Kuhnlein, nutritionist with the University of British Columbia, has worked closely with the people of Bella Coola to identify and record traditional food practices. With her assistance and that of botanist, Nancy Turner, the community has developed a botanical garden of traditional food plants. The project culminated in the publication of *The Nuxalk Food and Nutrition Handbook.*

Health fairs are also growing in popularity among native communities as a means of familiarizing the public with health services and promoting individual responsibility for health.

The revival of storytelling and use of legends as a means of teaching nutrition is just beginning but it is already proving a very effective method. By allowing mythical figures like Coyote to enter into the problem-solving process, the storyteller can present a controversial and potentially threatening subject in a culturally appropriate manner. The legend or story permits the listeners to stand back and take a more objective view of the situation and discover that they have the necessary resources to cope with the problem. *Nanabush and the Stranger,* written by John McLeod (1982), is an attempt to promote a better understanding of diabetes and its control. Metaphors enable people to gain insight into perceptions of health and disease and to discover culturally appropriate coping mechanisms (Hagey, 1984).

Conclusion

It is an exciting time for nutritionists and health professionals working with native people. As Obomsawin (1980), a noted Indian health advocate writes,

> I believe that what is required to achieve the Indian health we all dream of and hope for is the policy and means to affect a massive lifestyle reeducation of Indian people in the vital principles and laws of sound healthful living, hygiene and diet that was once their tradition. (p. 28)

At an international level, Ritchie (1967) states:

> Nutrition education cannot be successful unless based on a knowledge of attitudes, beliefs and values of the people to be influenced and of how they pass these on to their children and on an understanding of those concepts of human behaviour which relate to food selection or to the spread of innovations. (p. 30)

To this I would add the need for confidence in the ability of each person, regardless of their circumstances to resolve their own problems. ☐

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It's a fact that soft drinks are a part of everyone's lifestyle. So you may want to know what's in them.

To give you and the people you counsel the opportunity to become more familiar with the hard facts about soft drinks, the Canadian Soft Drink Association has put together a booklet called, "The Facts About Soft Drinks". We are also producing an educational film about soft drinks (available in the Fall).

These materials do not suggest that soft drinks are a substitute for proper nutrition, they simply describe what they're made of, how they're produced, their history, their diet implications and other important facts… and, remind you that this refreshing taste treat—like any good thing—should be taken in moderation within the context of a well-balanced diet.

We also have available a poster and brochure on the proper care and handling of glass bottles.

The booklet, poster and brochure are free for the asking and if you are interested in the film, just drop us a line.

We'd like to give you the hard facts about soft drinks.

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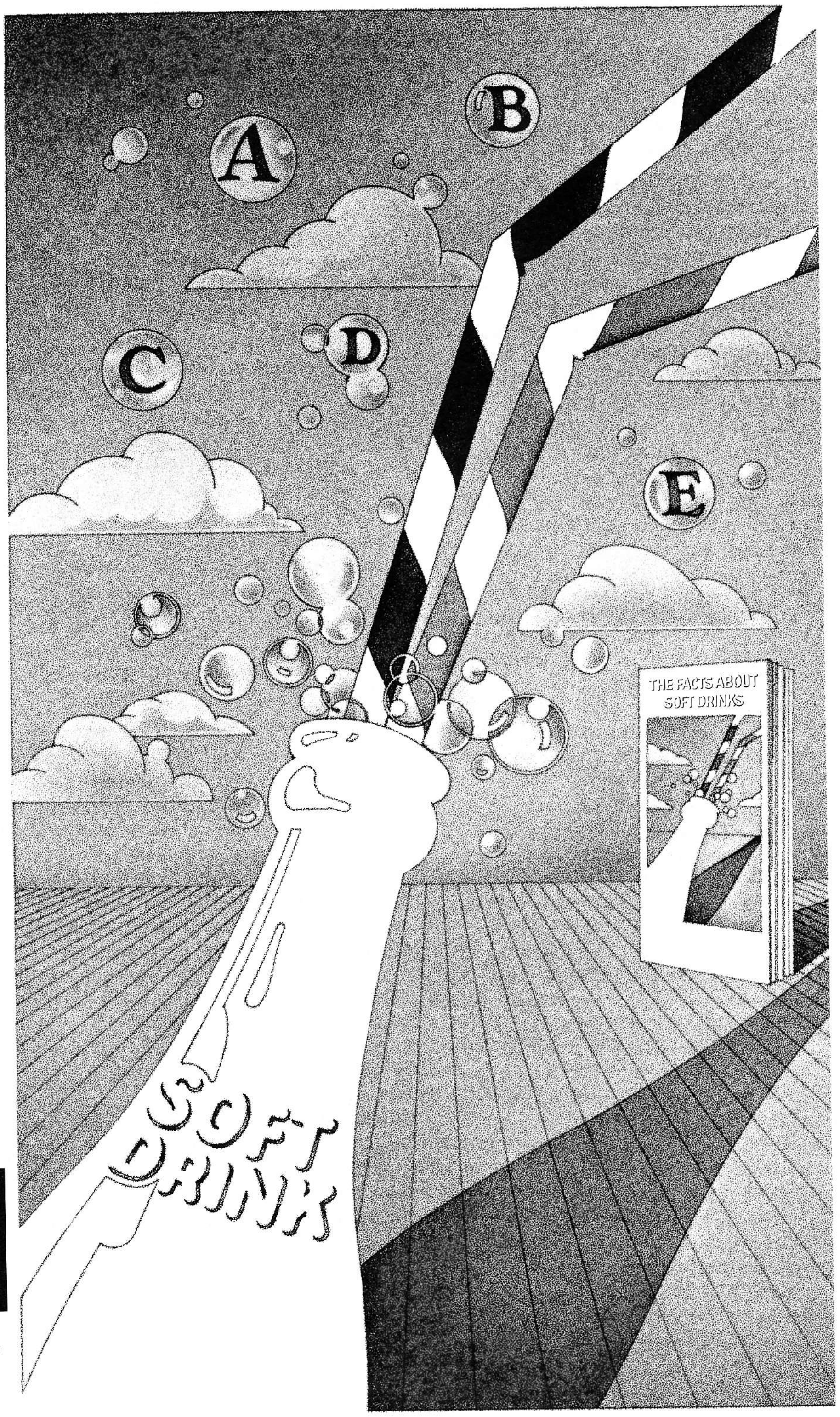
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THE FACTS ABOUT SOFT DRINKS
SOFT DRINK

SOFT DRINKS. ONE OF LIFE'S LITTLE PLEASURES.

Research Section

Factors Influencing Time Allocation to Home Sewing

Anne-Marie McHugh, Marjorie J. Wall, and William R. Frisbee

Abstract

Selected economic, demographic and sewing-related variables were related to time allocated by consumers to home sewing using a multiple regression analysis. Data were collected by mailed questionnaire from 621 female members of a nationwide consumer panel. Sewers allocated an average of 87.6 hours per year to sewing. Perceived sewing skills and the perception that fabric prices were rising at a faster rate than the price of all other goods in the marketplace, were positively related to time spent sewing. Socioeconomic status and full-time employment status were negatively related. Additional attitudinal data revealed that sewers (80% of the sample) and non-sewers (20%) thought sewing took a lot of time and that consumers sewed to save money. Chi-square analysis revealed no significant demographic differences between sewers and non-sewers. Implications for marketers of sewing products and educators were drawn.

Canadian Home Economics Journal, 1985, 35(3) 151-156

Résumé

Un rapport a été établi entre le temps alloué par les consommateurs à la couture faite à la maison et certaines variables selectionnées de l'économie, de la démographie, et de la couture, en employant une analyse à rebroussement multiple. Les données proviennent d'un sondage fait par la poste de 621 femmes membres d'un jury national de consommateurs. Les couturières ont alloué en moyenne 87.6 heures par année à la couture. Un rapport positif a été établi entre le temps passée à la couture, un talent perceptible pour celle-ci, et la perception que le prix des tissus haussait à un taux plus rapide que le prix de tous les autres biens de consommation en vente. Un rapport négatif semble exister entre la condition socioéconomique et la condition de l'emploi à plein temps. D'autres données portant sur les attitudes ont révélé que les couturières (80% de l'enquête) et les femmes qui ne cousaient pas (20%) pensaient que la couture prenait beaucoup de temps et que les consommateurs cousaient à la maison pour épargner de l'argent. Une analyse chi-carré n'a pas révélé de grandes différences démographiques parmi les couturières et les femmes qui ne cousaient pas. Les marchands des produits de couture et les éducateurs peuvent tirer leurs conclusions de cette analyse.

All consumers must allocate resources across a set of competing options. In the past, much consumer research has been concentrated on monetary resources and the set of goods and services available in the marketplace. While a case has been made for considering time as a resource of value, it has been ignored in much consumer market research. When studying household production tasks where money, equipment, market-purchased goods, and human resources must be combined; the value of time often becomes an important determinant of consumer behavior. Many household production tasks are time intensive. A key objective of many marketers and consumers has been to find time-saving substitutes, devices, and services.

Home sewing is just one of the many purposeful household production activities which allows "individual households to create the goods and services that make it possible for a family to function as a family" (Walker & Woods, 1976, p. xx). Like all household production activities, sewing requires valuable inputs of market goods, human resources, and time.

The argument that time has value has become particularly significant for women as they enter the paid labor force, and increased demands are placed on their non-labor market time. Time must be allocated to activities both within and outside the household and thus, with respect to any specific activity, time becomes an increasingly scarce resource. The increased value women place on their time may have a strong impact on how they allocate non-labor market hours to a range of time intensive household production activities including home sewing.

The purpose of the study was to examine the influence of selected economic and non-economic variables on the amount of time allocated to home sewing by Canadian women. The economic variables included the prices of materials required for home sewing, the prices of market-

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produced alternatives to home-sewn articles, the value of a consumer's time (measured by wage rate), and unearned income. The set of non-economic variables included demographic characteristics of the consumer and sewing-related variables. Supplemental information on selected consumer attitudes toward home sewing was also collected.

Background

Home sewing reached a peak in the United States in the early 1970s, a period described as a "home-sewing boom" ("Report from the home-sewing front," 1973). Although no empirical data exists to support the argument, it seems reasonable to assume that a similar trend was experienced in Canada at that time. Various members of the Canadian home-sewing industry have expressed concern, however, that home-sewing activity has declined in recent years (R. Conlin, personal interview, May 6, 1981; M. Fortier, personal interview, April 15, 1981; J. Gonzales, personal interview, April 15, 1981; E. Gramsch, personal interview, June 10, 1981). This assertion is consistent with an argument that the increasing value of time contributes to greater participation of women in the labor force and may lead to a shift in time allocated to home production activities like sewing. This time re-allocation process may have negative implications for sales, profits, and employment in firms which produce, distribute and sell products designed primarily for the home production market.

A few studies have focussed on home sewing (e.g., "Home-sewing fabrics unlimited," 1969; "Report from the home-sewing front," 1973). However, no recently published studies have investigated home sewing in Canada and, specifically, the question of time allocation to home-sewing activity by Canadian consumers has not been addressed. Such an investigation has important implications for the members of the home-sewing industry, namely, fabric producers and importers, pattern and notion producers, sewing machine manufacturers, and the retailers of all these products. Adult educators and teachers within the elementary and secondary school systems have questioned the place of sewing instruction and thus may be interested in the time use and attitudinal data.

Beyond the issue of home sewing, other productive activities within the home such as home renovations and food preparation also utilize time and market inputs. The application of a time use model in economic analysis can add to the body of knowledge regarding time use and can serve as a prototype for other analyses of time intensive home production activities.

Theoretical Framework

Background. Various theories have been presented in an attempt to explain consumer time allocation decisions (e.g., Becker, 1965; Graham, 1981; Hendrix, Kinnear, & Taylor, 1979; Holman & Venkatesan, 1979). Apart from theoretical discussions of the nature of time use decisions, studies describing specific patterns of time use are also present in the literature. Some of these studies have addressed general time use (e.g., Robinson, 1977) and many others have examined only one type of activity such as handiwork or leisure (e.g., Walker & Woods, 1976; Groneau, 1973, 1978; Kohen, 1981; McCall, 1981). A recent issue of the *Home Economics Research Journal* (*12*(2), 1983) includes reports on a variety of household production time use studies (e.g., Walker, 1983). Douthitt (1984) reviewed Canadian family time allocation patterns to home and market work and noted the dearth of research reporting Canadian data. Thus, a body of work has evolved to show the efficacy of time use as a dependent variable and the potential of various models of time allocation decisions.

Theoretical model. Of the available models, Becker's economic model of household production was deemed appropriate as the theoretical framework for the present study. Becker assumes that a consumer combines the inputs of market goods, non-work time (that portion of a consumer's time not spent in the labor force), and the services of household capital to produce useful commodities (Becker, 1965). Utility or satisfaction is derived from the consumption of these basic commodities by the consumer. When sewing is viewed as a household production activity, the goods input becomes fabrics, patterns and sewing notions. The non-work time input is the time spent shopping for sewing materials; preparing the fabric; laying out, cutting out and marking pattern pieces; and finally constructing the item. The household capital input is a sewing machine and the human capital input is sewing skill. The specific commodities produced using these inputs are garments, crafts, and home-decorating items. According to Becker's model, satisfaction is derived from the use of these home-sewn commodities. A detailed description of the model is contained in McHugh (1982; pp. 145-146).

The specific reduced-form equation of interest in this study is:

$$t_1 = f\,(p_1, \ldots, p_7, w, V; \mathbf{D}, \mathbf{Hk}, \mathbf{k})$$

where:

t_1 = time spent in home-sewing activity
p_1 = price of home-sewing fabrics
p_2 = price of home-sewing patterns
p_3 = price of home-sewing notions
p_4 = price of market-produced garments
p_5 = price of market-produced sewn crafts
p_6 = price of market-produced home-decorating items
p_7 = price of all other market goods
w = individual's wage rate
V = individual's unearned income (e.g., spouse's income, savings interest, dividends, and pensions)
$\mathbf{D}$ = a vector of fixed demographic variables (e.g., age, marital status, number of children living in household, age of youngest child living in the household, socioeconomic status, education level, and employment status)
$\mathbf{Hk}$ = a vector containing measures of fixed, sewing-related human capital, such as sewing skill level
$\mathbf{k}$ = a vector of fixed, sewing-related household capital stocks (measured by access to a sewing machine).

Methodology

Sample. A sample of 900 Canadian English-speaking women obtained through an established consumer panel was surveyed by mail. The panel was demographically representative of the English-speaking Canadian adult female population on the basis of such factors as household composition, geographical location and income level. Although some men sew, they represent a small segment of the market which was considered beyond the scope of the research.

The final data base consisted of 621 questionnaires representing 69% of the sample surveyed. The final sample contained more older respondents than the population average, with 48.5% between the ages of 49 and 59 years.

While most of the respondents were married (85.5%), only 46.2% had two or more children living at home. The majority of the respondents (69.2%) were high school graduates and 48.2% of them were employed full- or part-time. While 49.9% of the respondents lived in Central Canada, the other areas were also proportionally represented.

Instrument. The questionnaire contained two parts. The first part was completed by women who classified themselves as sewers, and the second was completed by women who classified themselves as non-sewers. The two terms were defined for the respondent as follows:

- A *SEWER* is able to operate a sewing machine and can use a sewing machine to construct an 'item' from a flat piece of fabric.
- A *NON-SEWER* is *NOT* able to operate a sewing machine and cannot use a sewing machine to construct an 'item' from a flat piece of fabric.

Each respondent who classified herself as a sewer then estimated the amount of time spent sewing during the 12-month period from June 1981 to May 1982, including time spent shopping for, preparing, and machine-sewing materials; and time spent hand-finishing items. This was accomplished by estimating the number of hours spent sewing during each season of the year and on each type of item. Items were divided into three types— garments, sewn crafts, and home-decorating items. A definition, including examples, was provided to the respondent in order to gain as accurate a report of time spent as possible (McHugh, 1982, p. 148).

Respondents also provided information pertaining to the economic variables in the model. This included their perception of prices of fabrics, patterns, and notions *relative* to the prices of other goods in the economy; and their perception of the prices of store-bought clothing, crafts, and home-decorating items. Information was also gathered on the respondent's unearned income and wage rate. The wage rate can be used as an economic indicator of the value of an individual's time. For those respondents who did not report a wage rate (i.e., those not employed outside the home), a wage rate was predicted using the following statistical technique (Gronau, 1978). Seven of the demographic variables were entered into a multiple regression equation as independent variables, with wage rate as the dependent variable. The regression was run on the subsample of respondents for whom actual wage rates were reported. Beta coefficients were obtained for each of the independent variables. Using the subsample of respondents for whom wage rates were **not** available, values for each of the independent variables were entered into the equation and a second regression was run to predict the unknown dependent variable, wage rate. In this way, a predicted wage rate, and thus a predicted value of non-work time was obtained for each respondent not employed outside the home.

Information describing demographic characteristics, sewing skill level, and access to a sewing machine was also provided by the respondents. Socioeconomic status was determined using the Blishen scale which utilizes occupation and allows persons to be classified in a combined social status and economic hierarchy which has been developed using Canadian census data (Blishen & Carrol, 1978; Blishen & McRoberts, 1976). As well, selected attitudinal statements were included in an effort to ascertain the reasons why women sew (in the case of sewers), and the problems associated with home-sewing activities (in the case of both sewers and non-sewers). A complete copy of the questionnaire is available in McHugh (1982, pp. 148-163).

Results and Discussion

Time allocation. Eighty percent of the sample identified themselves as sewers while 20% identified themselves as non-sewers. Over 75% of the non-sewers felt that they would not sew in the future, primarily due to lack of interest, lack of enjoyment or lack of time.

The subsample of sewers was divided into current and latent sewers. Current sewers (81.3%) were those who had sewn in the time period specified (one year), while latent sewers (18.7%) were those who had not spent any time sewing in that period. Almost three-quarters of the latent sewers (73.9%) thought that they would sew again in the future. Over one-half of the current sewers (56.6%) stated that they had sewn less during the year specified than in previous years and 13.7% thought they had sewn more than in past years.

As shown in Table 1, the mean total number of hours spent sewing by the group of current sewers was 87.6 hours. Approximately 25 hours were spent sewing in each season except summer, where the average decreased to approximately 16 hours. This decrease in summer may have been due to competing outdoor activities and vacation time. The greatest number of hours was spent sewing garments, while the fewest were spent sewing crafts.

Table 1. Summary of Hours Allocated to Home Sewing by Season and Item Category

	Sample size	Mean hours	Standard error	Maximum hours[a]
Season				
Spring	485	25.3	2.6	600
Winter	484	24.8	2.5	600
Fall	485	24.7	2.5	650
Summer	485	15.8	1.7	466
Entire year	481	87.6	7.1	1,112
Category				
Garments	481	51.3	4.9	998
Crafts	482	15.2	2.0	500
Home-decorating items	482	20.8	3.1	727

[a] Minimum hours for each category = 0.

Factors influencing time allocation. The equation for time allocated to home-sewing activity was estimated using multiple regression analysis. The dependent variable, time, was regressed on seven economic (prices of fabrics, patterns, notions, garments, sewn crafts, home-decorating items, all other goods) and nine fixed (age, marital status, number of children, age of youngest child, socioeconomic status, education level, employment status, sewing skill, access to a sewing machine) independent variables. The variable, unearned income, was removed from the regression equation due to poor response to the question concerning it. Omission of the variable may be a potential source of bias in the analysis.[1] The final regression was run on a sample of 438 cases.

Table 2 contains the results of the regression analysis. Variables 1 through 12 were measured as consumers' **perceptions** of the rates of change in prices of fabrics (variables

1 & 2), patterns (variables 3 & 4), sewing notions (variables 5 & 6), garments (variables 7 & 8), crafts (variables 9 & 10), and home-decorating items (variables 11 & 12), in relation to the overall rate of price inflation. The variables were coded as dummy variables. For example, if fabric prices were perceived to be rising faster than average the response was coded as "1" (variable 2, Table 2); hence, if variable 1 = variable 2 = 0 the implication was drawn that fabrics were perceived as rising at the same rate as the average of all items or that the consumer was unaware of the rate of change in fabric prices. A similar method of coding was used for variables 1 through 12. For marital status (variables 15 & 16), if 15 = 16 = 0 the respondent was single; for employment status (variables 21 & 22), if 21 = 22 = 0 the respondent was not employed outside the home, and for sewing skill (variables 23–26), if 23 = 24 = 25 = 26 = 0 the perceived skill level was beginner.

Variables were considered to perform well if the t-statistic $\geqslant \pm 2.0$. Four variables performed well in the regression analysis. The first variable is the perception that the price of fabrics was increasing at a faster rate than the price of other items (variable 1, Table 2). Consumers who perceived the price of fabrics to be increasing at a relatively fast rate allocated more time to sewing than those who perceived the price of fabrics to be increasing at a rate equal to that of all other goods or who were unaware of relative fabric prices.

Socioeconomic status (variable 19) was negatively related to the time allocated to sewing. As socioeconomic status increased, time spent sewing declined. Full-time employment status (variable 21) was also negatively related to time spent sewing. Women who worked full-time sewed less than women who were not employed outside the home or were employed part-time.

Finally, perceived sewing skill level was positively related to time spent sewing, provided the skill level was intermediate–advanced or advanced (dummy variables 25 & 26). The greater a woman perceived her sewing skills to be, the greater the amount of time allocated to home sewing, provided she perceived her skills to be at an intermediate–advanced level or higher.

While the four variables highlighted above performed best in the analysis, several other variables performed fairly well. Variable 15, the respondent's status as currently being married, had a negative relationship with time spent sewing. Since sewing is a relatively solitary activity, it may be reasonable to expect it to be negatively associated with married status. However, the effect of the marital status variable may not have been adequately measured since single women were not well represented in the sample.

Variable 18, age of the youngest child, also performed fairly well in the analysis, with age being negatively related to time allocation. Thus, as the age of the youngest child in the household increased, the amount of time allocated to home sewing appeared to decline. This variable may have performed less strongly than others because there was limited variation in the distribution of the age of the youngest child living at home.

Table 2. Multiple Regression Analysis — Economic and Non-economic Variables and Time Spent Home Sewing

Independent variables	B^a	t
1 Fabric prices rising faster than average	55.26	2.4[b]
2 Fabric prices rising slower than average	-6.03	-0.3
3 Pattern prices rising faster than average	22.20	1.3
4 Pattern prices rising slower than average	29.85	1.3
5 Notion prices rising faster than average	-5.83	-0.3
6 Notion prices rising slower than average	21.84	1.0
7 Garmet prices rising faster than average	-5.15	-0.3
8 Garmet prices rising slower than average	-32.77	-0.9
9 Craft prices rising faster than average	-11.31	-0.7
10 Craft prices rising slower than average	18.19	0.5
11 Home-decorating item prices rising faster than average	-11.76	-0.7
12 Home-decorating item prices rising slower than average	-49.67	-1.3
13 Wage rate	2.22	0.9
14 Age	0.46	0.6
15 Married	-48.56	-1.7
16 Widowed/separated/divorced	-87.44	-0.9
17 Number of children living at home	9.24	1.3
18 Age of youngest child living at home	-1.71	-1.4
19 Socioeconomic status	-1.25	-2.4[b]
20 Education in number of years	-3.10	-1.0
21 Employed full time	-34.93	-2.0[b]
22 Employed part time	14.19	0.8
23 Perceived skill, beginner–intermediate	-10.23	-0.3
24 Perceived skill, intermediate	15.46	0.6
25 Perceived skill, intermediate–advanced	74.08	2.6[b]
26 Perceived skill, advanced	187.95	5.8[b]
27 Access to a sewing machine	44.47	0.6

Notes: Summary statistics: $F = 4.8285$ $\alpha \leqslant .0001$; $df(\text{reg}) = 27$; $R^2 = 0.2413$.

[a] Unstandardized regression coefficient, reveals how much change takes place in the dependent variable (i.e., the number of hours spent home sewing in the past 12 months), when an independent variable is changed by one unit of its measurement.

[b] t is equal to the square root of F, i.e., $F_{(1,\, n-p)}$, $t \leqslant 1.96$, $\alpha \leqslant .05$

Several of the variables which did not perform well in the analysis also merit discussion. Wage rate (variable 13) performed poorly, indicating there was no evidence that it had any significant effect on time allocation. One possible explanation may be that wage rate was strongly correlated with full-time employment status, since the number of hours worked can be expressed as a function of the wage earned.

The age of the respondent (variable 14) is another example where no evidence was found to support a significant relationship with time allocation to home sewing. The effect of age may not have been significant because young women were poorly represented in the sample, with only 6.5% under the age of 30 years. As well, it may not have been significant due to a possible correlation between the variables age and marital status.

Attitudes toward sewing. Three reasons for sewing were cited most often by sewers as very important: sewing is a way to save money, sewing gives me a sense of pride, and sewing means I can get better quality than I can buy in the stores. In particular, it was noted that half of the respondents (52.2%) ranked saving money as very important, while 11.8% thought that saving money was less than a moderately important reason for sewing.

In rating the problems associated with sewing, the ones most frequently rated as very critical were: sewing takes a lot of time, it is hard to get a good fit with clothes sewn at

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[1] Omission of an explanatory variable from the regression equation will not be a source of bias in the analysis *if* the variable, i.e. unearned income is **not** correlated with any of the other independent variables. If however, unearned income is correlated with one or more other variables, the least squares estimator(s) or the Beta Coefficient(s) (B_i) of the remaining independent variable(s) with which it is correlated, will be biased. Due to the insufficient data for X_u the existence and extent of any bias cannot be determined, a fate befalling much social science research. For a detailed discussion of omitted variables see Kmenta (1971, pp. 392-395).

home, and sewing requires a lot of skill. However, less than a quarter of the respondents listed any of them as critical.

Non-sewers also responded to the set of attitude statements involving problems associated with sewing. Three statements cited most frequently as very critical problems were: sewing requires a lot of time, I am afraid that items I sew will have a home-made look, and sewing is difficult to do well. Thus, sewers and non-sewers both expressed concern over the amount of time involved in sewing, with almost twice as many non-sewers (43.7%) as sewers (22.8%) ranking it as a very critical problem.

Sewers and non-sewers did not differ significantly ($p \leq .05$) on any of the variables tested using contingency table analysis and the chi-square test. The variables included age, marital status, number of children, age of youngest child, education level, socioeconomic status, wage rate, and province of residence.

Implications and Recommendations

Major implications can be drawn from the four factors which were significantly related to home-sewing time allocation. First, the perception of fabric prices rising relatively fast was positively related to time allocated to sewing. Possibly, women who considered their dollar investment in fabric to be substantially high may have spent more time sewing to ensure that they were satisfied with the final product. This does not necessarily mean that they will make more items, as an increase in the time allocation to sewing does not necessarily translate into an increase in the amount of fabric purchased. In actual fact, the perception that fabric prices were rising faster than the price of all other goods was incorrect, as evidenced by the Consumer Price Indices over the period of 1972-1982. Thus, marketing and educational activity could be directed at changing consumers' perceptions of fabric prices, for a consumer's perception can strongly influence buying behavior. When combined with the attitudinal data that people sew to save money, correcting this misperception is important.

The second important finding was that time allocated to home sewing decreased with an increase in socioeconomic status. Many marketers assume that consumers in higher socioeconomic levels are strong prospects for home-sewing products because of potential spending power. However, in view of the findings, successful marketing programs must be designed to overcome resistance among sewers in higher socioeconomic levels. Retailers wanting to increase sales to this consumer group might do so by creating a quality fashion image or by encouraging custom sewing done by skilled personnel on behalf of the consumer. Further study may reveal, however, that many consumers in the higher socioeconomic levels are unwilling or disinterested in devoting time to sewing activity due to intervening lifestyle or personality factors and the economic means to purchase satisfactory ready-to-wear clothing.

Third, the research findings suggested that women who were employed full-time spent less time sewing than women who were not employed outside the home or were employed part-time. It is expected that women will continue to enter the labor force in increasing numbers. If lack of time is indeed the critical factor, then the home-sewing industry needs to make every effort to review the inputs such as sewing machines, fabrics, patterns, and notions with the intent of making them less time intensive. In recent years, such items as computerized sewing machines, fusible interfacings, quick sew patterns, and Velcro® fasteners have been marketed to make sewing less time consuming. Perhaps consumers are not fully aware of such time-saving products, lack confidence in using them, or find the results unsatisfactory. Educators should avail themselves of the latest time-saving products and techniques if they wish the development of sewing skills to be a continuing part of adult education and school curricula and to be realistic for today's lifestyles.

Results showed that consumers perceived sewing to require a lot of time and this perception will affect consumer behavior. Since sewing will always require time input, the industry and educators need to promote sewing as a worthwhile investment of a consumer's household production time and recognize that women employed full-time may sew less than women not employed outside the home. As noted by Stanton, Sommers, and Barnes (1982, p. 98), the lifestyles and buying behaviors of married women employed outside the home differ from those not employed outside the home. Thus, factors such as perceived fashionability of home-sewn garments versus ready-to-wear garments and a desire to move away from traditional female roles may help explain why working women allocate less time to sewing. The home-sewing industry may find that previous target markets dissipate as shifts occur in society and demographic characteristics of women change. If this is the case, the industry might be well advised to consider opportunities for diversification in order to cope with the cyclical or declining frequency of sewing activity. Likewise, educators must continue to appraise the needs of their students. They must determine how much, and which sewing skills are relevant to the lifestyles of young people now and in the future.

The fourth variable which was found to be important was that women who perceive their skills to be relatively high will spend more time sewing than the beginner. Members of the industry should recognize that their target group of sewers contains two distinct market segments: those who feel their skills are sufficient and thus allocate more time to sewing, and those who feel their skills are less than sufficient and view sewing as difficult. Marketing strategies for these two groups need to be different, as the perceived risks involved with sewing will vary and the consumer's willingness to spend time sewing will also vary. Retailers and manufacturers would benefit by helping sewers, through sponsoring classes for adults and encouraging the young to acquire sewing skills. Such efforts need to be directed at the young if the home-sewing market is to expand and be perpetuated. The role of the home economics educator in the Canadian school systems, and in particular, the importance assigned to sewing skill instruction in school curricula are important factors influencing whether sewing enters into the lifestyles of consumers of the future.

Recommendations for further study of home sewing can also be made. Latent sewers should be investigated as a distinct group of sewers. This group has the ability to sew and has sewn in the past, but has stopped allocating time to sewing. Discovering their reasons for stopping could help industry members determine whether they have erred in their marketing approach and whether the latent sewer can be attracted back to the home-sewing market.

Further study of non-sewers would be useful to determine their market potential. Most of the non-sewers (76.2%) owned, or had access to, a sewing machine, yet were unable to sew. Appropriate marketing campaigns could be developed if it was known what factors could motivate non-sewers to learn to sew.

A comprehensive examination of attitudes and the use of psychographics and lifestyle research is recommended to help reveal consumers' motives for sewing or not sewing. Such research may help explain why the economic and demographic variables found significant in this study influence time allocated to home-sewing. Such knowledge would help the industry to identify market segments within its target market and to tailor its products and advertising to stimulate and meet consumer needs. Psychographic and lifestyle research is particularly important in view of the finding that sewers and non-sewers could not be distinguished on the basis of demographic characteristics. As well, educators would have a better understanding of the role of sewing within today's lifestyles and could tailor instruction to suit various needs.

Finally, a study similar in design to the study of time allocation to home sewing could be useful when examining other specific household production activities. Comparisons between the research on home-sewing activity could be made with future studies on other household activities to determine any common influencing factors. This would contribute to better understanding of the value of time and the factors which affect its allocation across all household production activities. □

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Book Reviews

Help or Harm? Vitamins and Minerals

Charles W. Marshall. (1983). Philadelphia: George F. Stickley, 259 pages; hard cover, $14.95 (U.S.)

As indicated in the title, this book explores the facts and fallacies behind the often confusing issue of vitamin and mineral supplementation. The general public and many professionals are often led to believe that megadoses of vitamins and minerals can be a cure for a variety of physical and emotional ailments. Unbeknownst to vitamin enthusiasts, excessive supplementation can be an expensive experiment which, in the majority of cases, brings limited benefit and can be dangerous. This book gives a complete discussion of this subject from the need for vitamins and minerals for good health to the possible adverse results of megadose therapy.

Marshall's purpose in writing this book is simply and directly "... to discourage you from taking extra vitamins and minerals — especially large doses — if you don't need them." He achieves his purpose through a well organized presentation of the current scientific and medical literature dealing with vitamin and mineral supplementation.

Designed for the layman, this book provides a good discussion about the effects of vitamins and minerals in the body. Marshall explains the difference between science and quackery; vitamins and non-vitamins; and vitamin and mineral supplementation versus wise food choice. The actions of the fat-soluble and water-soluble vitamins, macrominerals and microminerals are discussed followed by actual examples of cases where over-supplementation has led to toxicity symptoms and even death. Interesting and controversial topics such as Vitamin C and the common cold; Vitamin E and its effects on the heart, aging, and sexuality; and megavitamin supplements for treatment of mental health problems, cancer, high blood cholesterol, and heart disease are dealt with thoroughly. Throughout the book and in his final chapters, Marshall advocates sensible food choices, based on the four basic food groups, as an alternative to the risky practice of megadose vitamin and mineral supplementation.

Marshall, author of more than a dozen scientific publications, has been studying vitamin and mineral nutrition for 10 years. This book clearly shows his expertise in the field. Marshall's writing style is concise and easy to follow. He has compiled a valuable source of reliable references for anyone wishing to further their knowledge on any of the subjects. A glossary that explains common nutrition and medical terminology is also included.

While this book was intended to serve as a guide for the layman and consumer in their attempts to make sense out of the often confusing and misleading information about the roles of vitamins and minerals in sensible nutritional practices, the book would also be a useful reference for a student studying current issues concerning vitamins and minerals.

Reviewed by:
Kelley Fitzpatrick, BA
Graduate Student
University of Manitoba
Winnipeg, Manitoba

Nutrition: A Guide to Decision Making

Jean Twombly Snook. (1984). Scarborough: Prentice-Hall Canada, 521 pages; softcover, $32.45

In this book, the author successfully presents strategies to assist readers when making decisions about how and what to eat. The concepts of risk-benefit analysis and cost-benefit analysis are described. Practical applications of these processes are given throughout the book to guide the reader through their own decision-making processes.

Sound nutrition information is presented in an easy-to-read format. Definitions and decision-making sections are color highlighted. Tables and figures throughout the text allow the reader to visualize the presented information.

No previous knowledge of chemistry or biology is required to understand the presentation of basic nutrition concepts. When covering controversial nutrition topics, both sides are outlined well. An extensive evaluation of common weight-reducing regimens provides the reader with a knowledge of why some methods are recommended over others by professionals. A minor drawback to the technical information in this book is use of United States standards.

This book would be useful for readers or students with a limited background in the sciences. Also, it could serve well as a reference for professionals not trained as nutritionists, but who are occasionally called upon to answer nutrition-related questions.

Reviewed by:
L.A. Wadsworth, BSHEc
Graduate Student
University of Manitoba
Winnipeg, Manitoba

A Rug Weaver's Source Book: A Compilation of Rug Weaving Techniques

Linda C. Ligon, editor. (1984). Loveland, CO: Interweave Press, 172 pages; softcover, $20.00 (U.S.)

Once again, here is another fine book published by Interweave Press. The book consists of seven chapters, each by a different weaver-author and covering a variety of rug weaving techniques: plain weave rugs (weft-faced and warp-faced), rag rugs, rya rugs, and block weave in rugs.

In each chapter, one rug is featured — one which was especially designed by the weaver to illustrate the type of rug being featured. Each sample rug is explained with color illustrations and numerous clear black-and-white line drawings. Warp and weft calculations, warping, tye-up, etc., are clearly explained for each project. All rug projects are constructed on four-harness looms.

As well as featuring one rug per chapter, each author draws upon their experiences as craftpersons and discusses salient points about each technique. Tips on care of rugs and finishes are offered. Numerous color illustrations of other rugs in their final setting are inspiring.

This book would be a welcome addition to a weaver's library. For students of weaving, the seven projects provide ample scope with which to explore the craft. Each rug is functional and this concept is stressed by each author. In the Preface, the editor states that all rug techniques *work* because "I saw and handled all the rugs that are pictured here." This assurance will provide the student and novice weaver with confidence to begin a project.

Reviewed by:
Elizabeth Barker, MSc
Nutritionist and weaver.

Qualitative Research for Education

Robert C. Bogdan and Sari Knopp Biklen. (1982). Allyn and Bacon, 253 pages; hardcover, $25.45

Those struggling to come to grips with the quantitative versus qualitative research approaches will find this book extremely helpful. It is designed to provide a background for understanding the use of qualitative research in education by providing an examination of its theoretical underpinnings and describing specific methods for conducting such research. The authors fulfill the purpose admirably with a minimum of jargon. It is refreshing to see that the authors are able to present their insights in a straightforward manner without imposing an obscure vocabulary that is understandable only to the "initiated."

Qualitative research is placed within a historical context and the assumptions that guide it are well presented. Research design, types of studies, use of field notes, and analysis of data are described. There are also suggestions for development of the manuscript to disseminate the findings in a way that will enhance their acceptance.

Especially helpful are the references to classic examples of qualitative studies, the journals where they may be found, and directives as to where one will find examples of the more formal as well as the non-traditional in qualitative studies. All in all, the novice researcher will find the book an invaluable resource — a systematic introduction to the qualitative method that is informative without being antagonistic to other research approaches. This is an easily read, approachable introduction to qualitative research and a good entry point to the literature in the field.

Reviewed by:
Verna Lefebvre, PhD
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Edmonton, Alberta

The Bump

Fred Penner (Illustrated by Barbara Hicks). (1984). Winnipeg: Hyperion Press, 28 pages; $12.95

The title of this book would certainly attract the attention of its audience, the preschool child. Fred Penner, talented children's entertainer and storyteller, has used a novel approach to the subject of self-worth. The book tells the story of a mound of dirt, appropriately called a bump. The bump is not satisfied with its less than grand appearance. It would rather be a hill, mountain, or fiery volcano. The story describes the growing process involved in the bump's final realization of self-worth.

The Bump is told through the words of Fred Penner and the illustrations of Barbara Hicks. A preschool child should be able to read a story book through the illustrations it contains. This concept is certainly evident in this book. The illustrations consist of lively cartoon characters and colorful, realistic scenery. The combination of these two effects is sure to catch the imagination of the child. *The Bump* originated as a children's song which Penner has adapted for print. Therefore, as well as the stimulating visual effects, the child is able to sing along with the prose.

This book would be a welcome addition to a child's library as well as a useful resource for a preschool program.

Reviewed by:
Leslie Donnelly, BA
Child Care Worker III
University of Winnipeg Daycare
Winnipeg, Manitoba

GASOLINE SNIFFING

(Continued from page 146)

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Abstracts of Current Literature

Submitted by
Département de nutrition
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New tools for achieving service quality

D.D. Wyckoff, (1984)
CHRAQ 25(3), 78-91

L'auteur présente de nouveaux outils pour contrôler la qualité des services sans sacrifier le choix, la flexibilité et le service personnalisé, élément vital de succès dans l'industrie des services d'alimentation. Cette nouvelle approche de contrôle de qualité des services est basée sur la reconnaissance et le développement de la capacité de penser de tous les employés. Elle s'appuie sur des méthodes qui permettent de comprendre, contrôler et améliorer le processus de gestion des services. La principale force des techniques utilisées est leur capacité de développer le "rôle humain" dans les systèmes de distribution des services.

La qualité d'un service. La qualité d'un service est défini comme le degré d'excellence déterminé pour satisfaire les besoins et les attentes de la clientèle et le contrôle des éléments de variabilité dans l'atteinte de cette excellence. Cette définition se compose de 3 éléments:

- Justesse du design de la qualité : aptitude à satisfaire les besoins et les attentes du client
    - cet élément doit être considéré en premier lieu
    - les besoins de la clientèle peuvent être catégorisés en :
        - besoins substantifs : élément central du service (ex : besoin de se nourrir par les aliments)
        - besoins périphériques : attributs du service qui complètent le besoin central (ex : sécurité, rapidité, relations interpersonnelles)
- Design de la qualité : niveau d'excellence prédéterminé
- Constance de la qualité : réduction au minimum de la variation dans le design de qualité

Eléments de base de cette nouvelle approche du contrôle de la qualité. Selon cette approche globale, variété du service et qualité du service ne doivent plus être mutuellement exclusifs. Il faut donc développer une préoccupation d'amélioration constante chez tous les employés qui dispensent au quotidien chacun des multiples éléments qui constituent la qualité des services. On vise ainsi à améliorer le processus d'interaction humaine. Le cheminement est basé sur quatre vérités de base :

- La qualité existe seulement selon la capacité d'un produit ou d'un service de satisfaire les besoins et attentes du client.
    - Ces besoins, complexes et multidimensionnels, peuvent être difficiles à identifier.
- Le contrôle de la qualité est un processus global.
    - Un produit ou un service de haute qualité est le résultat d'un système total de qualité à travers chaque volet de l'entreprise.
- Le coût de la qualité totalise les dépenses associées à la production et à la distribution de produits et de services qui rencontrent les standards définis. Ses composantes sont :
    - Coût de l'assurance : coûts associés à l'inspection, test, collecte et traitement des données de contrôle de la qualité
    - Coût de prévention : dépenses encourues pour prévenir la mauvaise qualité. (programme de formation, changement de processus, etc.)
    - Coût de défaut interne : coût des pertes ou de la récupération des produits défectueux qui sont interceptés avant d'atteindre le client.
    - Coût de défaut externe : coût entraîné par le fait que des produits défectueux atteignent le client (mauvais bouche à oreille, perte de clientèle, etc.).

L'objectif est de minimiser la somme de ces coûts.

- Les gestionnaires doivent voir l'inspection comme un outil qui mesure si le processus de production est capable de liver le produit ou le service attendu sur une base constante.

Divers techniques statistiques et méthodes d'enquête sont présentées pour contrôler la qualité et mesurer la satisfaction de la clientèle.

Cette nouvelle approche du contrôle de la qualité nécessite que l'entreprise prenne le temps de définir et l'articuler la signification qu'elle donne à la "qualité" de chacun de ses produits et services. Elle nécessite aussi que tous les intervenants (employés et responsables) s'impliquent dans la mesure constante de cette qualité car c'est seulement alors que l'amélioration est possible.

Laurette Dubé-Rioux, MBA

High-dose vitamin C versus placebo in the treatment of patients with advanced cancer who have had no prior chemotherapy

C.G. Moertel, T.R. Fleming, E.T. Creagan, J. Rubin, M.J. O'Connell, and M.M. Ames, (1985)
The New England Journal of Medicine, 312(3), 137-141

It has been claimed that high-dose vitamin C is beneficial, not only in prevention of the common cold, but also in the treatment of patients with advanced cancer. A few years ago, Pauling and Cameron reported a striking survival advantage for patients treated with vitamin C — a mean survival of 293 days as compared with 38 days for the selected control patients. These results attracted considerable public attention as well as causing widespread use of this treatment by patients with advanced cancer. To verify the validity of this therapeutic claim, Moertel et al. conducted a randomized double-blind trial on 100 patients with advanced colon cancer —the tumor type for which Pauling and Cameron reported the most frequent improvement with vitamin C.

Patients were stratified according to the characteristics of the disease and they were randomly assigned to receive either 10 g of vitamin C daily or a placebo (lactose). The patient, physician, and everyone else involved

in the patient's care were unaware of the drug assignment. Therapy was continued as long as the patient was able to take oral medications or until there was evidence of marked progression of the disease.

In this study, the vitamin C therapy showed no advantage over the placebo medication. No patient had measurable tumor shrinkage. The time intervals from the beginning of therapy to marked progression of the disease were similar in both groups: 2.9 and 4.1 months respectively for vitamin C and placebo groups. The survival times were unaffected by treatments: 49 and 47% surviving for one year on vitamin C and placebo, respectively.

The main difference between this study and that of Pauling and Cameron is the experimental design. Pauling and Cameron conducted a retrospective comparison between selected study patients and historical control patients, whereas Moertel et al. designed a prospective, randomized, and double-blind study. According to the authors of the present study, positive results obtained by Pauling and Cameron are the product of case-selection bias rather than treatment effectiveness.

Michele Houde-Nadeau, PhD

Microwave-inactivation of bacterial pathogens in various controlled frozen food compositions and in a commercially available frozen product

G.T. Spite, (1984)
Journal of Food Protection, 47(6), 458-462

The basic food chosen for this study was dehydrated mashed potatoes. The potatoes were reconstituted following the manufacturer's instructions. In addition to tests using the mashed potatoes alone, tests were performed on mashed potatoes to which specified quantities of one of the following constituents had been added: lipid (heated oleomargarine), protein (freshly cooked and drained lean ground round of beef), and distilled water. In addition tests were carried out on mashed potato samples to which whole precooked peas were added. Sample sizes used were single serving (120 g) and three times single serving (360 g). In addition, a commercial 12-ounce precooked frozen macaroni and cheese dinner was tested.

Species of four human pathogenic organisms, *Salmonella cubana, Staphylococcus aureus, Bacillus cereus,* and *Clostridium perfringens* were inoculated separately into the mashed potatoes and into the controlled mashed potato variations. Six-ounce dessert cups and 1-quart casserole dishes, both of Pyrex, were used as containers. After freezing, the containers were covered with household plastic wrap and cooked in a microwave oven. The cooking was done by a 1-step cooking process for 3 to 9 minutes at the highest microwave oven setting.

The frozen macaroni and cheese dinner was inoculated with all of the pathogens except *Clostridium perfringens* and cooked following the manufacturer's instructions. The suggested cooking time was 8 minutes on high setting with the food being cooked in the original cellophane covered and sealed, paperboard container.

All pathogens in the various mashed potato products survived the cooking cycle. This cooking time was the least detrimental to the food's palatability. The frozen precooked macaroni and cheese dinners resulted in poor kills of the inoculated pathogens when cooked following the manufacturer's directions.

These results support those of earlier research in which whole frozen food systems, turkey and ham pies, showed that significantly more microorganisms survived a microwave cooking process than a conventional one.

A defrost cycle followed by an immediate cooking cycle is, according to the authors, the typical recommended procedure by microwave oven manufacturers. A comparative study of this procedure and the 1-step cooking cycle used in this study is suggested. With this information advice could then be given to the consumer to ensure inactivation of bacterial foodborne pathogens in frozen foods.

Jeannine Deveau, MSc

Relationship between ascorbic acid and cell division

R. Liso, G. Calabrese, M.B. Bitonni, and O. Arrigoni. (1984)
Experimental cell Research, 150, 314-320

Experiments were undertaken to show that the process of cell division was dependent on the amount of ascorbic acid present in the cell. A potent inhibitor of cell division, lycorine was utilized to arrest the cell cycle. Addition of exogenous ascorbic acid prevented this arrest of cell division. This preventive action of ascorbic acid was a specific phenomenon since isoascorbic acid could not replace ascorbic acid. The mechanism of this preventive action of ascorbic acid was further investigated. It was observed that ascorbic acid was required for some step(s) of the G-I and G-II phases of the cell cycle prior to the onset of DNA replication and G-II mitosis transition, respectively. Previous investigators have shown that nuclei of calf thymus and liver contained a high concentration of ascorbate and in lily anthers the concentration of ascorbic acid rose to a peak value during mitosis, but was greatly depressed when mitosis was over. These data suggest that ascorbic acid was probably utilized during the synthesis of nucleic acids and proteins, and was a factor particularly in controlling the synthesis of hydroxyproline-containing proteins which could be an essential requirement for development of G-I and G-II phases of cell cycle.

Uma Shanker Srivastava, MSc, DSc, FACN

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New Developments

... In Products

Super Nutrivia Game

Super Nutrivia was developed by the dietitians in the Departments of Dietetics of Metro Calgary and Rural Hospital District #93 for Nutrition Month 1984. Based on popular trivia games, *Super Nutrivia* consists of 900 questions and answers divided into six nutrition categories. Included in the package are questions and answers printed on color coded cards, rules of play, and two score pads.

To order: Send $10.00 (cheque or money order payable to Metro Calgary and Rural General Hospital District #93) to Alvina Hills, Department of Dietetics, Rockyview General Hospital, 7007-14th Street S.W., Calgary, AB, T2V 1P9. Please allow 8 weeks for delivery.

Sugar in Medications: A risk to healthy teeth

"The palatability of many prescription and non-prescription medications is enhanced by sugar. While patients appreciate its sweetening effect, most are unaware that high sugar content in an ostensibly therapeutic product can be deleterious to their dental health," points out a recent article in the *Journal of the Canadian Dental Association.*

In a subsequent article, published in the *Canadian Medical Association Journal*, the author adds that the best way to prevent the unique damage caused by sugar in medications is to completely remove sugar from medications and replace it with a non-cariogenic substitute.

Both articles refer to xylitol as a safe alternative to sugar in medications. The natural sweetener is not food for the bacteria which cause tooth decay. It reduces decay-causing dental plaque and triggers natural defense mechanisms in the oral cavity: to stimulate saliva, to clear away acids, and promote remineralization.

For more information: contact Barry R. Ashpole, 1 Yonge Street, Suite 1801, Toronto, ON, M5E 1E5, (416) 362-4804.

For Lactose-Intolerant Individuals

Lactose-intolerant individuals do not have the lactase enzyme to digest the milk sugar — lactose. *Lacteeze* is a partly skimmed 2% milk which has been treated with a natural lactase enzyme. This enzyme breaks up the lactose into the simpler sugars — galactose, and glucose — which makes the product easily digestible.

Lacteeze aids in the repair of gastric intolerances and when consumed, the gastric effects from lactose (e.g., bloating and/or diarrhea) are not experienced in the individual that has lactose intolerance.

Lacteeze is packaged using a revolutionary new ultra-high temperature (UHT) technique which greatly extends the shelf life of the product. It can be kept refrigerated for at least 35 days.

Because of the special techniques, *Lacteeze* will cost slightly more than regular milk. It was to be distributed through dairies who will sell to their own outlets and chain stores in Ontario mid-January 1985.

For more information: contact HBB & Associates Inc., Health Communications Consultants, 2 Bloor St. W., Ste. 400, Toronto, ON, M4W 3K1, (416) 922-2147.

Lactase Enzyme Tablet

For lactose-intolerant individuals, a new lactase enzyme tablet is now available. The new *Lactaid* tablets will allow instant consumption of milk and milk-containing products such as ice cream, cheese, pizza at the time and place of eating without the fear of gastrointestinal upset. The tablets will help lactose-intolerant persons to cope with any lactose-containing food while in hospital, at home, or away from home. *Lactaid* tablets are available without prescription in pharmacies throughout Canada.

For more information: Free sample tablets can be obtained by writing Jan Distributing, P. O. Box 623, Thornhill, ON, L3T 4A5.

Cheapest Sewing Machine Won Praise

The old sewing machine granny used to sew up your pants "ain't what it used to be" says the January issue of *Canadian Consumer* magazine. Only three of the nine sewing machines tested by the Consumers' Association of Canada's lab endured 36 hours or more of intermittent use. The good news is that the best machine wasn't the most expensive. "The lowest-priced model in our test, the $250 Kenmore 158-13401, proved to be a top performer that won praise from expert and novice sewers," says the monthly magazine.

Source: Excerpts from, Harvey, M. (1985, January). Cheapest sewing machine. *Canadian Consumer*, pp. 27-33.

... In Ideas

Meeting the High Cost of Education

It isn't surprising that there is a new wave of interest in education savings plans. Parents of young children reading of the hardships faced by today's college students, are looking at ways to provide for their offspring. If a college diploma or university degree for your child is one of your financial goals, you may be interested in the available options.

A simple savings account earmarked for future school costs is one solution, but perhaps not the wisest. It won't provide any tax advantages and it is very easy to dip into. Registered Education Savings Plans (RESPs) are another possibility. Managed by professionals, these plans involve payment of management fees and have a number of strings attached. Study the plan carefully before you sign on the dotted line. If you are in a high tax bracket and would like to combine tax cuts with savings for education, you may want to explore the more complex stock dividend plans. These plans let you save for a college education while splitting current income and lowering taxes.

One of the most popular plans, though, is the Family Allowance trust. You simply open a savings account in the child's name and make constant or flexible deposits. There's no need for a costly trust agreement. Any interest earned in the trust is taxed in the hands of the child. In most cases the child's income is lower than the parent's so a tax saving can result. And there are other advantages. Unlike RESPs the total amount invested, with interest, goes to the child even if it is not used for education.

On the negative side, you are limited to a maximum contribution equal to the Family Allowance payment; the child owns the money; and for those who like to be forced to save, this system relies on your own willpower, as there is no minimum contribution.

Whichever system you choose, the best advice is to start as early as possible. Even small amounts deposited on a regular basis can mount to a tidy sum because of the compounding interest factor.

Source: Perozzo, N. (1984, December) Manitoba Government, Home Economics News Release.

Choosing a Financial Advisor

In recent years, the number of individuals and firms calling themselves financial planners has increased tremendously. Some of this increase reflects real growth in the number of legitimate financial planning consultants. Unfortunately, much of the growth represents the fact that "financial planner" has become the "in" euphemism for a wide variety of people selling everything from tax preparation services to mutual funds to syndicated real estate deals.

How *do* you tell whether a self-styled financial planner is the real thing or just a soft-sell wolf in the innocent guise of a consultant? Personal financial planners have developed a set of questions which will help people to make a more intelligent and productive choice. Here are some of the questions, with suggested right answers after each question.

What percentage of your total revenue do you derive from fees for advice? At least 70%. Purists will argue that the figure should be 100%, but that begs some questions about how effective *implementation* of planning will be.

What is the breakdown of the portion of your total revenues you don't earn from fees for advice? The less the proportion attributable to sale of high risk tax shelters, the better chance you'll have of getting balanced investment advice.

What is the range of financial planning problems and/or opportunities to which you pay significant attention in your practice? If the list includes only tax returns and tax planning, the approach is too narrowly technical. If it includes only investments and syndicated tax shelters, the focus is too much on high risk investments. The list of questions should also include the more mundane but vital aspects of financial success such as effective long-term savings plans and use of banking and credit facilities, income splitting with family members, and generally programming investments to start with the safe and the liquid and move carefully into the high risk "locked in" variety — not the reverse. Adequate attention should also be paid to estate planning including wills and life insurance, and the choice of key players such as executors, trustees and guardians.

Source: Excerpts from, Choosing a financial planner is now more difficult than ever before. (1984, August). *The Personal Financial Planning Letter*, 5(8), pp. 1-2.

L'information sur la Science Alimentaire Accessible en Direct

Avez-vous besoin de faits sur l'intoxication alimentaire, les additifs, la réglementation en matière de santé, l'hygiène, les statistiques se rapportant à la consommation alimentaire, la chimie de la cuisson, les valeurs nutritives ou la façon d'emballer différents genres d'aliments?

Cherchez-vous de l'information précise sur le cacao, les sucres, les bonbons, les boissons alcoolisées ou non, les oeufs, les huiles, la viande, le poisson, les légumes, les noix ou tout autre produit comestible? Ou désirez-vous connaître les normes de préparation et de traitement des aliments au Canada ou ailleurs?

Si vous avec un terminal équipé d'un modem, vous pouvez repérer et commander toute la documentation dont vous avez besoin en quelques minutes dans une base de données qui vient d'être ajoutée à CAN/OLE, le système d'interrogation en direct de l'Institut canadien de l'information scientifique et technique.

Food Science and Technology Abstract (FSTA) est un fichier international réalisé par le International Food Information Services à Francfort, en République fédérale d'Allemagne. Le fichier FSTA recense les résumés d'environ 1200 périodiques, les brevets de 20 pays, les normes et les monographies en n'importe quelle langue. Tous les aspects de la science et la technologie alimentaires sont abordés. Les domaines connexes tels que la chimie, la biochimie, la physique et l'agriculture ainsi que l'économie domestique et le génie sont également recensés dans la mesure où ils se rapportent aux sciences et à la technologie alimentaires.

Le fichier FSTA englobe environ 270,000 références, publiées de 1969 à aujourd'hui, et compte des mises à jour mensuelles d'environ 1500 références.

Pour obtenir de plus amples renseignements sur la façon d'accéder au fichier FSTA par l'entremise du système CAN/OLE, addressez-vous au: Service aux Clients CAN/OLE CAN/SDI, Institut Canadien de l'Information Scientifique et Technique, Conseil National de Recherches Canada, Ottawa, ON, K1A 0S2, (613) 993-1210.

Source: *Conseil national de recherches Canada Communiqué*, (1984, le 28 novembre).

. . . In Trends

Diet, Cancer Link Growing

Several organizations have now concluded that scientific data on the relationship between diet and cancer are strong enough to warrant the development of dietary guidelines to lower cancer risk according to Dr. T. Colin Campbell, Senior Science Advisor to the American Institute for

Cancer Research and a cancer researcher and professor of nutritional biochemistry at Cornell University.

To date, the available data "strongly suggest that a diet enriched in plant products reduces cancer risk," said Campbell. Cancer risk "increases with high intake of dietary fat and protein, and low intakes of food rich in vitamin C, vitamin A (as beta carotene), vitamin E, and dietary fiber."

The two guidelines that will have the most likely impact on consumers in the marketplace were the recommendations: to reduce dietary fat intake from the current level of 40%-45% to 30% of total energy intake; and to emphasize the importance of including fruits, vegetables, and whole grain cereal products in the daily diet.

Source: News Release, American Institute for Cancer Research, Washington, DC, 20069. Contact person: Nancy Lasersohn, (202) 783-4848.

Baby Boomers Reshaping Markets

With retailers predicting reduced consumer spending in 1985 baby boomers, with a high level of disposable income and better-than-average earnings growth, represent a critical and increasingly affluent market segment.

Retailers and analysts say boomers are largely responsible for swelling sales of video cassette recorders, microwave ovens, expensive jewelery, deli meats and gourmet food, packaged vacations, designer clothes, and near-luxury cars. Their watchwords: quality and convenience.

Maternity shops and children's stores are also reaping the benefits of a so-called "boom echo" in the birth rate, since boomers who delayed starting families are now having children. Even the $275-million disposable-diaper market reflects the boomers' penchant for quality products, with premium priced Kleenex Huggies a big winner in the battle for the baby's bottom.

"The baby boomers are a terrific market," agrees Leonard Kubas, a Toronto-based retail consultant. "They represent about 44% of the entire Canadian adult population. By 1990, one of every two Canadian households will be headed by a baby boomer."

Retailers and marketers agree that the well-educated, well-travelled, and well-heeled baby boomers are sophisticated as well as choosy. They'll dig deep to pay for top-quality merchandise, but they are also price-conscious.

Adds John Winter, senior associate with Clayton Research Associates: "The baby boomers are both the most intelligent and the most fickle market."

Source: Excerpts from, Lamphier, G. (1984, November 5). Baby boomers are reshaping markets. *Financial Times of Canada*.

... In Publications

Adolescent Nutrition

The Proceedings of the International Symposium on Adolescent Nutrition and Food Behaviour present various interdisciplinary points of view on a single subject — adolescent nutrition. Health promotion, changing behavior patterns, socio-cultural aspects, and physiological and medical perspectives are all discussed. Copies of the proceedings are available from the Department of Home Economics, University of Prince Edward Island, Charlottetown, PEI, C1A 4P3, at a cost of $15.00 plus $1.00 for mailing (cheques payable to the University of Prince Edward Island).

Source: *Canadian Institute of Child Health Newsletter*, 6(4). (1984, December).

Disability Insurance Booklet

A booklet to help consumers understand disability income replacement insurance has been published by the Canadian Life and Health Insurance Association (CLHIA). Titled *Where Will The Money Come From — if You're Disabled?*, the booklet outlines the benefits provided by government, employers, and individual plans.

Making sure you'll have an adequate income if you are unable to work because of an illness or injury is a crucial element of financial planning. Like life insurance, disability coverage offers protection against unwelcome possibilities, said Wegg, Vice-president of Public Relations, CLHIA. "Yet, fewer Canadians have disability coverage, even though the average 32-year-old is almost seven times more likely to be ill or injured for 90 days or more than to die in the following year."

As well as describing the features of these plans, the booklet provides a checklist of questions to ask when examining a policy, and a section in which consumers can calculate their own disability income needs.

To order: Single copies are available free from The Information Centre, Canadian Life and Health Insurance Association, 20 Queen St. West, Suite 2500, Toronto, ON, M5H 3S2, (416) 977-2221.

Les Femmes Dans La Population Active

Depuis 1968, le Bureau de la main-d'oeuvre féminine publie des rapports statistiques sur la participation des femmes à la population active. Bien que la présentation de ces documents ait souvent changé, le lecteur peut quand même suivre de près les tendances observées dans l'emploi de la main-d'oeuvre féminine. La série actuelle, *Les femmes dans la population active*, comprend trois parties. Alors que la Partie I présente des statistiques sur la participation à la population active, la Partie III en contient sur la syndicalisation, le congé pour soins d'enfants et autres questions relatives à l'emploi des femmes. Les données contenues dans la Partie II (Revenus) permettent de comparer les salaires que reçoivent les hommes et ceux que reçoivent les femmes.

Pour obtenir des exemplaires de ces publications, veuillez communiquer avec le Centre de distribution des publications, Travail Canada, Ottawa, ON, K1A 0J2, (819) 994-0543.

Canadian Top-sellers

The top-selling Canadian book in the past decade and possibly in history is a cook book published by seven Calgary women. Regardless of what this says about Canadian culture or literary tastes, the success of the *Best of Bridge* series of three cook books astounds Canadian publishers. They have sold more than a million copies in a country where sales of 50,000 paperback copies of a book constitute a bestseller.

Also astounded are the seven women who began the project over a card table in Calgary in 1975 and used a combination of perseverance, promotion, and a certain amount of pushiness to turn it into a business that now grosses $1.4 million a year.

Source: *The Globe and Mail*, (1985, February 18) p. B4.

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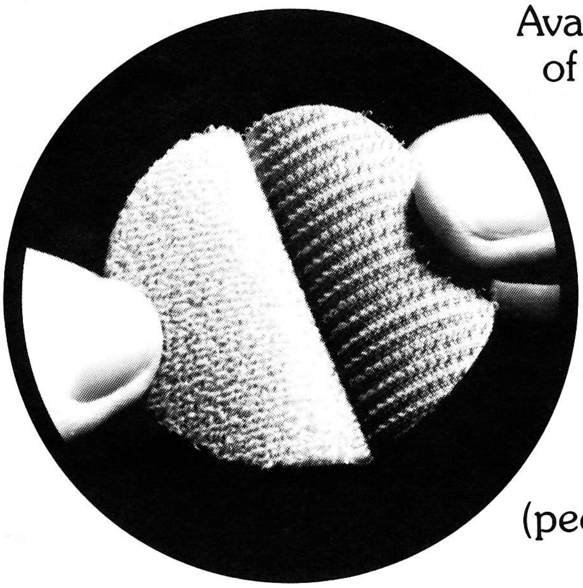

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What do you say when ...?

What do you say when a fitness enthusiast recommends salt tablets?

Suzanne Tenold

With the recent increase in awareness of the benefits of regular exercise, jogging and long-distance running have become popular with growing numbers of the population. Those who choose this form of activity often have a keen interest in nutrition and its impact on performance, and may be susceptible to the many myths that abound. One such misconception is that since heavy sweating depletes the body's salt supply due to the salt content of the perspiration exuded, salt tablets should be taken. This assumption is not accurate and in fact extra salt is unnecessary and can be dangerous.

High concentrations of salt quickly lead to dehydration of the body which in turn, increases the risk of heat-stroke, heart attack, and kidney failure (Bayrd & Quilter, 1982). Indeed some electrolyte losses occur during periods of heavy sweating, with sodium and chloride being the principal ones, however the loss is rarely in quantities that require concentrated replacements. While electrolytes are essential to a variety of physiological functions (muscle contraction, nerve transmission, and fluid balance) high levels of any one electrolyte can place undesirable stress on the body.

In view of the large amount of water lost during heavy exercise, it is often surprising how small the sodium loss actually is. The major influence in the conservation of sodium during exercise is aldosterone. This hormone is secreted by the adrenal cortex in response to a shift in the electrolyte balance of the body fluids. It stimulates the kidneys and the sweat glands to conserve sodium (Smith, 1976). Thus, although water continues to be lost through perspiration, plasma electrolytes actually become more concentrated rather than depleted. The need to replace the water losses is greater than replacing specific electrolytes.

Excessive intakes of sodium salts without adequate hydration can adversely affect the body's electrolyte balance by dehydrating cells and reducing total blood volume. Physical performance is reduced as nutrients and oxygen are less available to the muscles, removal of toxic wastes become less efficient, and body temperature is no longer maintained at safe levels. Also, excess sodium increases the loss of potassium which is essential to muscle function, including heart function (American Dietetic Association, 1980; Bayrd & Quilter, 1982).

On the average, body sweat contains 1 - 2 g/L of sodium (Reed, 1980). A normal mixed diet contains approximately 6 - 8 g of sodium (American Dietetic Association, 1980), an amount that is more than adequate to replace that lost during exercise. If there is any concern about overcoming sodium loss resulting from heavy exercise, the safest way is to add a little extra salt at the table or to have a lightly salted beverage such as broth, reconstituted boullion, or a liquid made with 1.5 mL salt per litre of water (Smith, 1976). Commercial beverages promoted as electrolyte supplements are usually within recommended sodium levels but have a higher sugar content than is necessary. Too much sugar before, during, or after exercise can slow gastric emptying and induce stomach cramps (Bayrd & Quilter, 1982).

In instances of intense prolonged physical activity where water loss is greater than 3 kg (1 L of sweat = approximately 1 kg loss in body weight), consideration may be given to salt tablets to replace sodium. A physician specializing in sports medicine is best qualified to evaluate the need for supplementation in such cases. Salt tablets usually weigh 500 mg each and must be taken with an adequate quantity of water — at least 500 mL per tablet (Ledoux-Peronnet, 1978).

Athletes participating in modest physical activity, either during competition or training, should concern themselves with water loss rather than sodium replacement. Satisfying water requirements to prevent dehydration is essential to health and performance. ☐

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Editor's note: We welcome suggestions for topics to be featured in this column.

Suzanne Tenold obtained a BSc in Food Science from Macdonald College, McGill University and completed a dietetic internship at the Calgary General Hospital. She is currently employed by Alberta Agriculture as regional food and nutrition specialist for Southern Alberta.

A regular column by the *CHEA Foods and Nutrition Committee* to assist home economists in combatting food and nutrition misinformation. Edited by **Jane Carlyle.**

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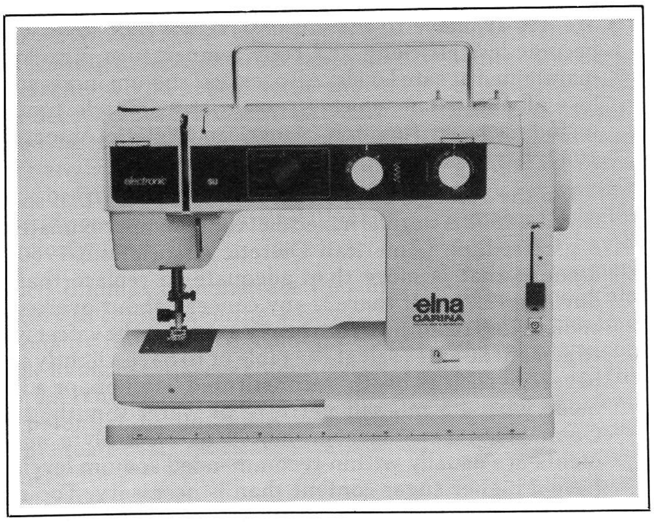

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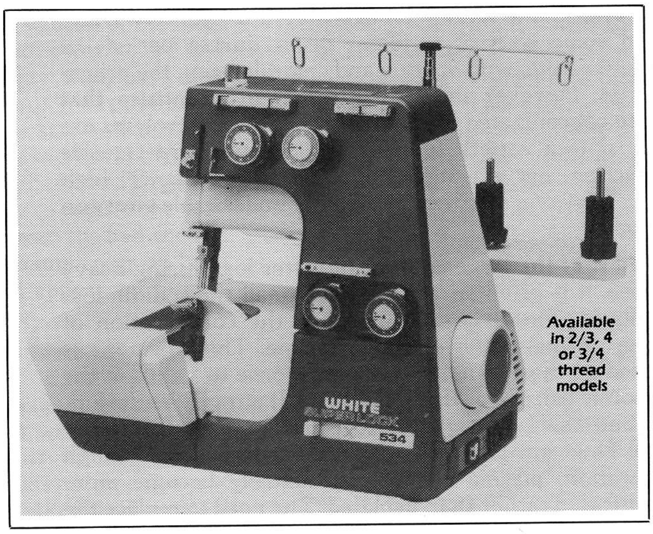

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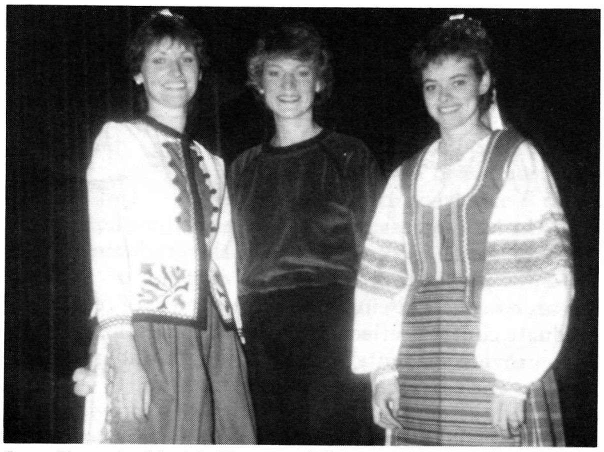
On the Job

Profile of a Home Economist as a Costumer

Irene Romaniw


Irene Romaniw (c) with Ukrainian folk costumes of the Boyki (l) and Volyn (r) regions

I am a costumer. I am not a costume designer à la Edith Head, rather, I specialize in "adaptation" of costume. My experience as a costumer has spanned some 12 years and taken two distinct paths—both interesting. I have been involved with the production of dance costume and the reproduction of historical costume.

As a home economist with a clothing and textile major, I have always been entranced with beautiful creations. My interest had been restricted to contemporary clothing and fashion until the Fall of 1972 when I attended a concert of folk dance that featured the Rusalka Ukrainian Dance Ensemble. I was mesmerized by the performance and went backstage to offer my assistance with wardrobing. My offer of assistance was eagerly accepted and I was initiated into the world of costuming. I have never looked back.

Ukrainian folk dance has become quite sophisticated and because of its colorful variety and enthusiastic portrayal has wide audience appeal. Being the costumer of a Ukrainian dance group offers unique challenges. Those familiar with Ukrainian folk dance perhaps imagine the dance and dress of Kiev: the boys with their wide-legged pants doing high leaps and acrobatic feats, and the girls with their bright vests, skirts, and beribboned, flowered headpieces gracefully executing complicated routines. However, the Ukraine occupies a large territory and is made up of several unique regions. Historically, every village within a region had its own variation in dress, particularly in the type of weaving, embroidery, and ornamentation. Consequently, Ukrainian costume has incredible variety.

It is important to co-ordinate the dance and the costume with the region from which they originate. Obviously traditional folk costume must be adapted for stage purposes. The costume must be modernized, shortened, and trimmed of bulk to complement the dance form. Ornamentation must be modified so that it is visible from a distance. Small detail that is often synonomous with Eastern European folk costume such as embroidery, appliqué, and metal work is lost to the audience and must be replaced by techniques that give the right on stage "effect." This facilitates my work since great amounts of handwork would be too time consuming. As with most folk costume, the cut of the garments is usually rather simple, requiring minimum fitting. This is a tremendous bonus for a costumer as the dance troupe changes personnel regularly. Possibly the most difficult aspect of my job is to locate fabrics and trims that are appropriate and affordable. I have tramped the aisles of fabric stores for hours trying to co-ordinate costumes and on occasion, have resorted to screen printing to achieve the desired effect.

The significant question here is, why do I do it? Like the old Hollywood musicals, the "show" is all important and the feeling of a job well done is worth the hours associated with researching, shopping, sewing, and fitting. The satisfaction of seeing a beautiful production is incredible; the electricity and excitement backstage before and during a show is addictive and the pride felt when an audience rises to a standing ovation cannot be expressed. As Rusalka has performed for hundreds of enthusiastic audiences worldwide, I have had opportunities to travel to many parts of North America and Europe with the dance group. It has been a wonderful experience.

In recent years, I have been employed by Parks Canada and have used my costuming skills to reproduce historic costumes for use in museums and historical sites across Western Canada. This work is decidedly different from folk dance costuming where the stage effect is important. For Parks Canada "detail" is of highest priority. Before anything is reproduced for a historic site, the project is fully researched by studying the inhabitants of the area, the events that took place, and the availability of trade products. Great effort is put into locating fabrics to duplicate the original garments even if it means having fabric specially woven. When prototype garments and sometimes even the fragile originals are copied, extreme care is required so they are not damaged. Thankfully, most of the costumes for the Western Canadian historic sites do not date back further than 1860 so the sewing machine can be used in the reproduction of the garments. However seam finishes and buttonholes, as well as many other details must be patiently executed by hand. The work is fascinating and affords an intimate glimpse into the world of our forefathers and the history of Western Canada takes on new meaning.

I find my work as a costumer rewarding. It offers me a chance to be innovative and creative within flexible working hours. Further, it has given me the opportunity to travel, meet new and exciting people on two continents, and has given me the satisfaction of knowing that my talents and efforts are appreciated. ☐

Irene Romaniw graduated from the University of Manitoba with a BHEc and a Certificate in Education. Following graduation, she taught for several years in Winnipeg and then began work as a costumer. Currently she works on a contract basis for Parks Canada, Prairie Region in the interpretation and reproduction of historical costume.

Graduate Study in Consumer Studies and Human Nutrition

Robin Douthitt

University of Saskatchewan

The MSc degree of the College of Home Economics is a research degree. The aim of the graduate program is to prepare professionals capable of conducting research as well as being critical consumers of research. The graduate courses reflect this orientation in their objectives — to provide students with an in-depth understanding of theories and research in a particular area and to enable them to critically assess the merits of both; and to provide students with the skills to apply the theoretical base to nutrition/consumer studies issues.

The program usually consists of two terms (one academic year) of full-time course work (a minimum of 15 units of credit) and approximately one year to complete the thesis requirement. The College of Graduate Studies and Research requires that candidates for the master's degree must spend at least one winter session in resident graduate study and must complete the degree within a maximum of 5 years from initial registration.

Both the nutrition and consumer studies programs provide opportunities for students to work in co-operation with other colleges and departments including: microbiology and food science, toxicology, animal science, medicine, pharmacy, economics, agricultural economics, physical education, commerce, and education.

The College of Home Economics is located in the Thorvaldson Building and shares facilities with the College of Pharmacy and the Departments of Chemistry and Chemical Engineering. The office which houses graduate students has phone service, a microcomputer, and a CRT direct-wired to the University's DEC20 mainframe computer. Students also have access to larger college and university computing facilities. Basic training in the use of all facilities is provided free of charge by both the College and Academic Computing's consultants. A laboratory with modern instruments for biochemical analysis, spectrophotometry, and other routine laboratory procedures relevant to nutritional investigations is available.

Applicants must be graduates from 4-year programs in home economics or related disciplines. All students are expected to have undergraduate training in their areas of specialization, research methods, and statistics. Students lacking such background will be expected to take additional course work in order to attain proficiency before beginning the thesis.

Tuition and fees for full-time graduate study for 1984-85 averaged $1165 for the first year and $365 in the second year. A number of assistantships and scholarships are available through the University. Such awards are described in the calendar published by the College of Graduate Studies and Research. In order that applications for financial aid be given the earliest consideration, they should be submitted prior to February 1st.

Faculty Research Interests

- R.A. Douthitt, PhD
  Family and consumer economics — household time allocation, residential energy demand, consumption economics
- E. Lee, MSc
  Community and clinical nutrition — gerontology, nutrition education
- G.M. Moss, PhD
  Adult education — continuing professional education, evaluation of educational programs
- J.P. Olson, PhD
  Nutritional biochemistry — metabolic and diabetic control in spontaneously diabetic Wistar ('BB') rats, enzymology, metabolic effects of dietary manipulation
- B.J. Pain, PhD
  Family and consumer studies — consumer behavior in the service sector, divorce in Saskatchewan
- M.L. Steel, PhD
  Food and nutrition — structural components of baked goods for use in allergy diets
- W.E. Young, PhD
  Home economics education and communication — Delphi methodology to determine curriculum objectives, communication competencies, the historical development of home economics, gerontology, women in science

Graduate faculty from other departments holding associate membership

- A. Haynes, PhD (Department of Sociology, College of Arts and Science)
  Family sociology — family partnerships and community development
- E.S. Humbert, PhD (Department of Applied Microbiology and Food Science, College of Agriculture)
  Food processing and dairy science — chemical studies of milk and milk products; development of new food products
- A.K. Sumner, MSc (Department of Applied Microbiology and Food Science, College of Agriculture)
  Food analysis and processing — functional, sensory, and chemical properties of processed cereals and legumes and their use in foods for developed and developing countries

Career opportunities in the area of Consumer Studies include positions such as research associates in post-secondary education, private industry, and government. Opportunities for graduates in Human Nutrition include international, government, public, community health agencies, hospitals, food industries, universities, pharmaceutical industries, and laboratories. Both programs provide an excellent background for individuals wishing to pursue a PhD at another institution or department at the University of Saskatchewan. ☐

For more information:
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Part of a continuing series about graduate study in home economics and related areas in Canada.

Wax Print Textiles of Ghana[1]

fabrics for personal commentary and group cohesion

Mary Ann Littrell

Abstract

Wax print textiles have a long history in Ghana as the most prestigious machine-produced fabric for clothing. They were imported from Europe during the late 19th and first half of the 20th centuries. By the 1960s the textiles were manufactured in Ghana. The designs on the wax print textiles have names or stories that reflect Ghanaian life and culture; the rich vibrant colors convey long established meanings. Due to the symbolism in wax print designs, Ghanaian women use their clothing for personal commentary on proper social behavior, favored objects from daily life, and current political views. The choice of specific fabric colors and of wax prints over western style clothing alternatives contributes to cohesion within important groups in Ghanaian society.

Résumé

Les tissus imprimés par réserve à la cire sont considérés depuis longtemps au Ghana comme les textiles industriels les plus prestigieux pour l'habillement. D'abord importés d'Europe à la fin du XIX^e siècle et dans la première moitié du XX^e siècle, ils sont maintenant fabriqués au Ghana depuis les années 1960. Les motifs de ces tissus ont un nom ou une histoire qui reflète la vie et la culture du pays. Leurs riches couleurs éclatantes ont des significations très anciennes. Les Ghanéennes utilisent en effet la symbolique des motifs pour exprimer des opinions personnelles sur le comportement social souhaité, sur des objets prisés de la vie ordinaire et sur la politique. Le port de l'habit traditionnel de préférence au vêtement à l'occidentale et le choix de couleurs et de motifs particuliers pour les tissus contribuent à renforcer la cohésion de groupes importants de la société ghanéenne.

Throughout the world individuals use clothing to convey information about themselves and to facilitate social encounters with others. Among Ghanaian women, wax print textiles are a particularly important medium for non-verbal communication.[2] Wax print textiles are considered by Ghanaians to be the most prestigious machine-produced fabric for clothing. The textiles have large bold designs; each design has a name or story closely allied to Ghanaian life and culture. In addition, the vibrant colors are associated with long established meanings. Because of the rich symbolism in wax print textiles and the variety of designs available, Ghanaian women have frequent opportunities to convey information non-verbally through their clothing.

The purpose of this paper is to document two special uses of wax print textiles within Ghanaian society. First, wax print designs with well-known names or stories are worn as personal commentary on aspects of daily life. Through wearing specific wax print designs, Ghanaian women are conveying information about one component of their individual identities. Second, within certain important groups in Ghanaian society, wax print clothing is worn in preference to the alternative of western style clothing. Through wearing wax print clothing in specific colors, a cohesive tone is set which facilitates interaction with other group members. An overview of the production, selling, and use of wax textiles will precede and provide background for the documentation of wax cloth for personal commentary and group cohesion.

Production, Selling, and Use of Wax Textiles

A wax print textile begins as bleached, plain weave cotton cloth. Engraved copper rollers are used to apply the wax by machine to the fabric. The wax acts as a dye resist for the areas that will serve as background to the motifs. As successive dyeings in indigo follow, the motifs are revealed in the areas where no wax has been applied. The wax is then removed and additional colors are printed on the cloth by hand with large wooden pattern blocks. Each wax design is printed in four to twenty standard color combinations, called colorways. The colorways are intended to satisfy ethnic and regional color preferences and have varied little over the years, despite changing fashions in colors apparent in other forms of apparel.

European imports. The first wax print textiles, in the form of Indonesian batiks, were likely brought to Ghana as trade items by Dutch East

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[1] Field research on wax print textiles was conducted in Ghana, September through December, 1976. The research was partially funded by a David Ross Research Fellowship, Purdue University, and was conducted with the co-operation of Ghana Textile Printing Company. Observations and interviews were carried out with representatives of all components of the industry including managers, designers, marketing specialists, distributors, sellers, and consumers. The interviews took place in major cities for textile production, distribution, and sales, which included Accra, Cape Coast, Kumasi, Tamale, and Tema. The use of wax print textiles as everyday and special occasion attire was observed in a number of rural villages. Additional study of wax print textiles was carried out in Nigeria during May, 1982.

[2] In Ghana, wax print textiles are used predominantly for female attire. Certain designs, in a limited range of colors, are considered "men's cloth." When worn by men, the fabric is wrapped around the body in toga style.

Mary Ann Littrell is an associate professor in the Department of Clothing and Textiles at Iowa State University. She holds a BS from Kansas State University, MA from Michigan State University and PhD from Purdue University.

Journal Paper No. 329 of the Home Economics Research Institute, College of Home Economics, Iowa State University, Ames, Iowa.

Third of a series of articles on the relationship between textiles and culture commissioned by the International Development Committee of CHEA with financial assistance from the Canadian International Development Agency.

India Company merchants or as gifts by West Africans returning from military service in Indonesia in the first half of the 19th century (Kroese, 1976). By the 1890s, there were specific requests from West Africa for wax print textiles (Nielson, 1974). English, Dutch, and Swiss textile firms responded to the requests and produced wax cloth for export to West Africa during the late 19th and first half of the 20th centuries. European manufacturers made frequent trips to West Africa to learn about their African customers. By the 1930s, two designers were employed in Ghana by European companies to design cloth specifically for Ghanaian consumers (Sarsah, 1970). During the first half of the 20th century, increased family income from expanded cocoa production and the gold boom contributed to greater consumer purchasing power for imported goods such as wax print textiles (Hopkins, 1973; Szereszewski, 1965).

Ghana Textile Printing Company. Incentive for development of the wax textile industry in Ghana occurred when textile import restrictions were initiated in the 1960s as part of a Ghanaian government program for self-reliance. Growth of the Ghanaian textile industry was swift. By the mid 1970s, 80% of the wax cloth manufactured in Ghana was produced by Ghana Textile Printing Company (GTP), a joint participation company of the government of Ghana with trading and textile firms in Great Britain and the Netherlands. Acceptance of domestically produced cloth was slow as imported cloth retained its prestige. However, by 1973, customers expressed displeasure when the Ghana Textile Printing Company logo, "G.T.P. Guaranteed Real Wax," was omitted from some cloth. The logo, printed on the cloth selvage, had become a symbol for distinguishing the high quality made-in-Ghana cloth from other inferior domestic cloth (United Africa Company Trade Report Files, 1973). On November 8, 1975, the government's textile import restrictions were complete; no further importation of textiles was allowed ("Ban on Textiles," 1975).

Sellers and consumers. Market women traders are organized into an extensive system for the distribution and selling of wax textiles (Littrell, 1978). In 1976, over 4,800 women were registered customers with United Africa Company and G.B. Ollivant and were entitled to purchase wax print cloth directly from these two leading wholesalers (United Africa Company Trade Report Files, 1976). These well-established market women conduct their retail business in shops and market stalls. Many also maintain a wholesale business for younger women who are new to textile trading and who have not yet acquired the funds necessary to register with the major wholesale trading companies. Some of these secondary traders sell textiles at temporary roadside stands. Others roam the streets with piles of fabric on their heads. Textile traders are noted for their business acumen and their cultivation of clients.

Wax cloth is purchased in a 12 yard (11 m) length and is sewn into three garments: the *slit*, a long skirt; the *kabba*, a blouse; and the *second cloth*, a rectangular piece tied at the waist and used as a carrying cloth. Figure 1 shows the neckline and sleeves for a kabba style that is common to young women. Simpler neckline and sleeve styles are common to the kabbas of older women. Wax cloth was formerly used for a variety of occasions; however, today it is considered special occasion cloth for church services, family gatherings, village festivals, and funerals. The transition to special occasion cloth came as the cost of wax cloth escalated and as western style apparel became common everyday attire in the cities. Western style attire is rarely constructed from wax print fabric.

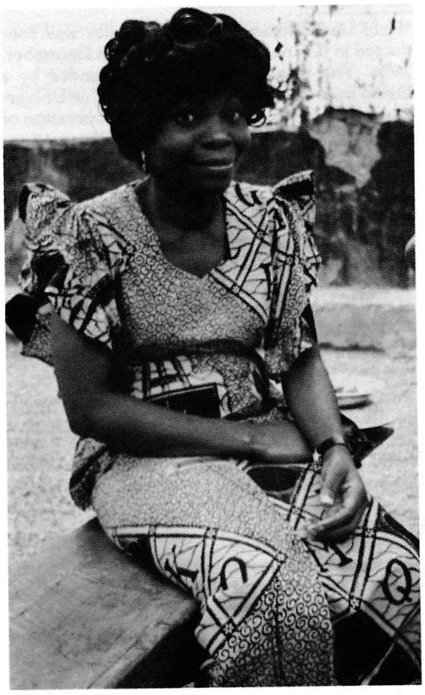

Photo courtesy of Sharon Channer.

Figure 1. Wax print clothing ensemble constructed from *ABC* design cloth and composed of kabba (blouse) and slit (skirt).

Over their lifetimes, women frequently acquire large quantities of wax cloths. Some are received as valued gifts. A male informant described the upcoming purchase of wax print fabric as a Christmas gift for his elderly mother and her possible response should he purchase an inferior type of fabric such as a fancy print textile,

> It [wax print fabric] is the first thing. And particularly when you get wax because you know you are buying something for the wardrobe which will last. The [Ghanaian women consumers] will scorn at you when you buy a fancy print. The old lady wouldn't even thank you for it.

It is not unusual for elderly women to have 200 to 300 cloths in their wooden storage chests or *cloth boxes*. Women wear clothing made from their oldest cloths interchangeably with their newer acquisitions.

At the time of a woman's death, wax cloth becomes a symbolic measure of a woman's life. The woman's cloth box is opened and her cloth is displayed. The range and quality of cloth is used to judge the success of a woman's life. One older informant described the practice,

> At the funeral festivities often a woman's cloth box is opened. And people will, based on her cloth, make a statement, "She lived well, she has good cloth. So many Dumas [wax print textiles], so many of this, so many of that. She lived well. She has good cloth."

Wax Cloth as Personal Commentary

People throughout the world use clothing to convey information about their individual identities. Information about social roles and economic status is commonly provided through clothing (Roach & Eicher, 1979; Stone, 1962). Through clothing, Ghanaian women have the opportunity to convey information about more than the socio-economic aspects of their individual identities. Ghanaians have a propensity to convey their beliefs about life through proverbs or traditional sayings and to link the maxims to visual motifs found on boats, furniture, buildings, and ceremonial regalia

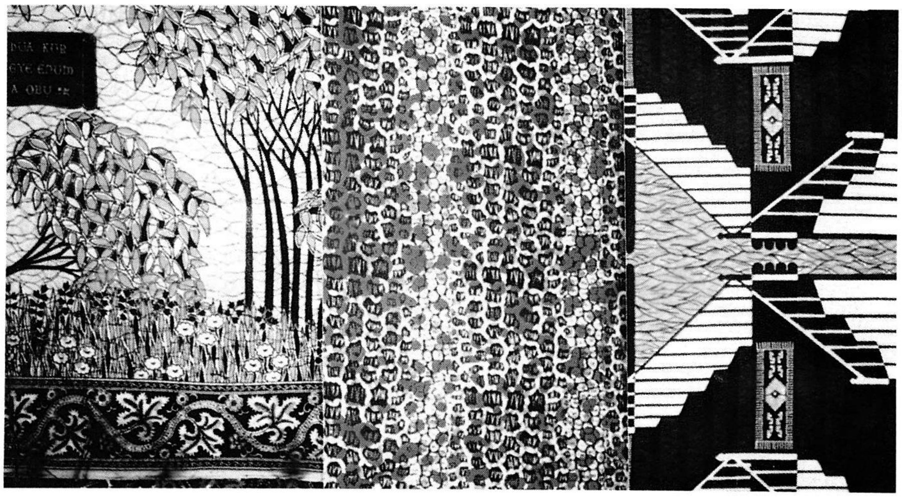

Figure 2. Wax print designs named for proverbs and adages: from right to left, *The Falling Tree, Gravels of the House,* and *Death Staircase.*

(Cole & Ross, 1977). The association between verbal adages and visual motifs also applies to Ghanaian wax print textiles. Because of the names and stories associated with wax print motifs, Ghanaian women can choose specific wax print fabrics to personally comment on life around them.

Commentary on Ghanaian life and culture is provided by market women sellers who name the wax print designs and Ghanaian consumers who wear the fabric. Although textile designers may speculate about possible names for new designs, it is the leading market women sellers who eventually provide the names by which the fabrics become known in Ghanaian society. Fabrics have been named to convey market women's perspectives on proper social behavior, to endorse or warn about objects in daily life, and to convey views concerning government programs and public officials. Examples follow for each of these categories.

Proverbs are used by Ghanaians to verbally codify social norms and laws (Cole & Ross, 1977). A fabric design named for a proverb provides endorsement of the ideas expressed in the adage. The *Falling Tree* (see Figure 2, left) illustrates the proverb that "a great tree cannot stand alone." The proverb suggests that even among great or well-known people, the cultural tradition of family solidarity should not be forgotten. *Gravels of the House* (see Figure 2, centre) illustrates that members of a compound know an individual's weak points and may use the information to censure another family member if so desired (Ababio, 1975). *Death Staircase* (see Figure 2, right) illustrates the subject matter of death and mourning, a theme especially prevalent among the Ashanti people in Ghana. The design serves as a reminder that all individuals, regardless of their social rank, should be prepared to eventually climb the stairs of death. In a final example, a printed cloth named *Beads* conveys that "good beads make no noise" and suggests that truly important people are not boastful.

In a second category, names can denote endorsement for or provide warning about objects from everyday life. *Thermogene* (see Figure 3, top right) endorses a favored skin ointment available in Ghanaian markets. The naming of fabrics after songs shows approval for and no doubt has boosted the popularity of musical recordings. In contrast, another design *Money Has Wings* warns of the fleeting quality of money when it is not cared for properly.

The names in a third category of designs show support for government programs or commemorate important people in public life. *Nkrumah* (see Figure 3, top left) was named for the first President of Ghana, Dr. Kwame Nkrumah. *ABC,* shown in Figure 1, was a visual support for the literacy campaign undertaken in the 1960s by the Ministry of Labor and Social Welfare.

Finally, two cloth designs illustrate that despite some attempts by designers or marketing managers to give names to textile designs, the names by which the textiles actually become known are those provided by market women. One marketing manager thought the design on the bottom left of Figure 3 would be called *Cocoa Pod* after the plant it resembled. However, the cloth was introduced in the market on a Friday and a market woman titled it *Payday* to call attention to this important day. A second design, on the bottom right of Figure 3, remained unpopular for an extended period of time. However, cloth sales soared when market women commemorated the opening of the Cape Coast town hall by naming the cloth *Town Hall.*

While market women provide commentary on Ghanaian life and culture through the naming of cloth, Ghanaian consumers, in turn, select and wear specific textiles to espouse their viewpoints. Osei-Assibey (1974) described the seriousness with which a Ghanaian woman approaches her cloth selection by stating, "she chooses her cloth with good taste and near reverence" (p. 13). In order to learn more about Ghanaian women's selection of specific wax print designs, I interviewed

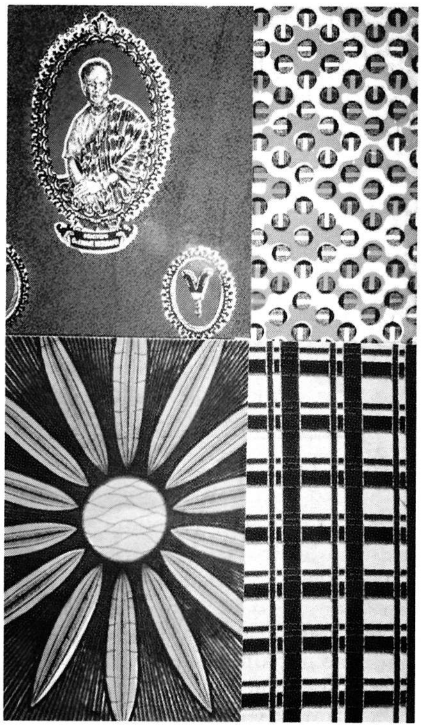

Figure 3. Wax print designs, counter clockwise from top right: *Thermogene, Nkrumah, Payday,* and *Town Hall.*

over 100 women consumers who ranged in age from their early 20s to mid-60s; were from the four ethnic groups of Ashanti, Ewe, Fanti, and Ga; and were active in a range of occupations including market women, students, and clerical and professional positions. While the women differed in the specific wax designs they preferred, they provided similar reasons for their choices. Two of the most common reasons for selecting a specific wax print design were because it "is a design that has meaning or symbolism to Ghanaians" and it "is acceptable to members of my village or friends" (Littrell, 1980). As with the market women who name the fabrics, women consumers select motifs to convey personal comments that are understood and accepted by other Ghanaians.

Wax Cloth for Group Cohesion

Clothing serves to facilitate group encounters by providing information about the identities of the individuals involved and by providing insight about the possible tone and content of the potential interaction. In large groups, members often strive for a tone of group cohesion in order to carry out group goals. Cohesion may be achieved as members provide recognition and security to one another, share norms for behavior, and exhibit a "we" over "I" orientation in their activities (Shaw, 1976). Clothing of similar formality is often worn by group members to create an atmosphere of cohesion. In addition to similarity in formality of attire, Ghanaian women can also facilitate group cohesion through choosing specific colors and by wearing Ghanaian rather than western style attire.

In the first half of the 20th century, western style clothing became synonymous with well-educated Ghanaians who worked in the cities. However, as independence approached in 1957, Ghanaians searched for a national identity separate from their earlier colonial status. Ghanaian style clothing became increasingly important as a visible symbol of a national identity tied to long standing Ghanaian traditions of respect for family and village elders, close interdependence of kin, and diplomacy and elegance in communication. Today, the choice of wax print textiles in specific colors, over western style clothing alternatives, visibly facilitates cohesion at ethnic group, village, and family gatherings where these Ghanaian traditions are espoused.

Ghanaian women contribute to cohesion within their ethnic groups by following long established practices related to color in clothing. My analysis of marketing records for 82,000 bales of fabric distributed in Ghana between 1972 and 1976 (United Africa Company, 1976) revealed that distribution of colors followed a pattern of ethnic group preferences that had been identified by European traders as early as the 18th century (Daaku, 1970). Among the Ga people, white cloth is worn at Homowo, a harvest festival that serves as a rite of intensification for the Ga people. A marketing manager for Ghana Textile Printing Company explained the importance of white wax cloth, "One day's delay in having a new white design available for Homowo would be the loss of several thousand cedis"[3] ("Distribution of Textiles in Ghana," 1972, p. 10). Among the Ashanti people, mourning is observed for lengthy periods of time. Maroon, dark red, black, or other dark colored cloths are considered proper attire for mourning. I observed the pervasiveness of the mourning practice during a business day at the United Africa Company office in Kumasi. Of approximately 200 women who came to purchase cloth, over 80% were wearing mourning colors.

Among Ghanaians, family solidarity is of major importance. The lineage is the most important social unit in day-to-day interactions among women who reside in rural villages and among less-educated women in cities (Abu, 1983; Robertson, 1984). Women who leave their rural villages for life in the cities carefully maintain ties with the extended lineage in their home villages (Melson & Wolpe, 1970). Women strengthen these ties by rendering financial assistance to rural family members, attending family events such as naming ceremonies and funerals, and returning for annual village festivals. While urban women may wear western style attire in the cities, the choice of traditionally prestigious wax print textiles for visits to home villages sets a tone of cohesion within the family and the village. When the woman chooses wax print designs in colors favored by her ethnic group, she further augments her contribution to group cohesion. One informant, a professional women who wore western attire almost exclusively in Accra, explained her ownership of wax cloth and her readiness for participation in family and village events, "Even among professional women you just *must* [italics added] own certain cloth." In summary, the wearing of wax print textiles sets a tone of cohesion at ethnic group, family, and village gatherings where Ghanaian traditions are honored.

Wax Print Textiles in the 1980s

From its inception, Ghana Textile Printing Company has produced cloth primarily for domestic consumption. Little attention was given to exporting wax print fabrics so that foreign exchange credit could be earned. However, foreign exchange is essential to purchase replacement parts for broken machinery as well as copper rollers and dyes for printing, all of which are available only outside Ghana. Because of a general economic crisis in Ghana and limited foreign exchange, textile production is nearly at a standstill in the 1980s. Market stalls, formerly heavily stocked, are nearly bare. Due to the low stock of dyes, any cloth that is printed is often produced in colors considered undesirable by the Ghanaian consumer. One sales manager stated, "It has been pathetic to see customers rushing for our goods even though the items are not attractive, just because they are the only ones available."

The bleak textile production situation brings into question the future of wax print textiles as fabrics for personal commentary and group cohesion. Several options exist. First, older wax prints may be retrieved from cloth boxes and put to greater use. This alternative, while contributing to the continued use of wax prints, would lead to a decline in the dynamic quality of personal commentary that was possible when new fabrics were being continually introduced and named by market women. Second, the illegal importing market could expand to bring wax prints into Ghana. However, fabrics available through the black market would be prohibitively expensive to most consumers. Finally, other forms of attire, such as western style apparel, may assume greater importance as a medium for communication. The years ahead seem a time of adjustment as Ghanaians alter their patterns of using wax print textiles for personal commentary and group cohesion. ☐

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[3] In 1972, the official rate of exchange was 1.28 cedis = U.S. $1.00.

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CLOTHING AS A CUE

(Continued from page 143)

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Liz Dowdeswell

President's Message/Le Message de la Présidente

One with our Environment

Pensons à notre environnement

The theme of transforming environments encourages us to look beyond ourselves, to contemplate our relationships with our environment. The term 'environment' means different things to different people. Scientists describe the environment in terms of physical, chemical, and biological processes. To others the term means the natural world, even a wilderness, a force to be reckoned with. From another perspective, the environment is a storehouse of renewable and non-renewable resources, or a dumping ground for the by-products and wastes generated by human activities. In spite of these differing views, there is a growing awareness that we are all part of the natural ecosystems that support life on earth.

The environment became a popular topic of conversation in the early 60s when public attention was drawn to our "chemical society." Although some progress has been made, it is a sobering fact that over 1,000 new chemical compounds are registered for use in North America each year. We have been told that "the average kitchen contains enough toxic chemicals to equip a rudimentary laboratory and the average garden shed enough to poison the neighborhood." Home economists who concern themselves daily with the near environment must surely worry about our incomplete understanding of the risks to human and environmental health.

Individually and collectively we have an obligation to preserve the vitality and resilience of our ecosystems. Living in harmony with our environment does not mean transforming the environment. It means that we must clearly understand that our behavior impacts on the environment and that perhaps it is society, rather than the environment, which must adapt. We must be willing to examine the values and attitudes which underlie our production and consumption patterns. And finally, we must recognize that the decisions we make today will profoundly affect the environment we pass on to future generations.

Home economists have long recognized that people and quality of life are more important than material goods. It is appropriate and natural that we affirm the need for a more responsible, more caring stance with respect to our environment. ☐

La transformation des environnements est un thème qui nous incite à dépasser notre horizon et à remettre en question la façon dont nous traitons notre environnement. Le terme "environnement" prend divers sens suivant les gens. Les chercheurs pensent aux phénomènes physiques, chimiques et biologiques. D'autres personnes y voient la nature, parfois à l'état sauvage, une force avec laquelle il faut compter. Vu sous un autre angle, c'est une réserve de ressources renouvelables ou non, ou un dépotoir pour les sous-produits et les déchets résultant des activités humaines. Malgré ces divergences, nous sentons de plus en plus que nous faisons tous partie des écosystèmes naturels qui permettent la vie sur la Terre.

Au début des années 60, l'attention du public ayant été attirée sur la "société chimique," l'environnement était devenu le grand sujet de conversation. Il y a eu des progrès, mais quand on sait que plus de 1 000 nouveaux produits chimiques sont mis sur le marché tous les ans en Amérique du Nord, il n'y a pas lieu de se réjouir. On dit "qu'une cuisine moyenne contient assez de produits toxiques pour équiper un laboratoire rudimentaire, et la cabane à jardin, suffisamment pour empoisonner le quartier." Les économistes familiales, dont le champ d'activité est l'environnement immédiat, doivent à juste titre s'inquiéter, puisque les risques auxquels les humains et l'écologie sont exposés ne sont pas entièrement connus.

C'est un devoir, individuel et collectif, que de sauvegarder la vitalité et la résistance des écosystèmes. Pour vivre en harmonie avec notre environnement, il ne faut pas le transformer, mais bien comprendre que nos actions ont des conséquences et que c'est peut-être à la société de s'adapter, et non pas le contraire. Penchons-nous sur les valeurs et les mentalités liées à nos modes de production et de consommation. Et il faut bien admettre que les décisions d'aujourd'hui pèseront lourdement sur le monde que nous léguerons aux générations suivantes.

Les économistes familiales reconnaissent depuis longtemps que les personnes et la qualité de vie importent plus que les biens matériels. Lançons donc, c'est tout naturel, un appel en faveur d'une attitude plus responsable et plus attentive à l'égard de notre environnement. ☐

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There are five classes of membership: active including life, associate, student, reserve and honorary.

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1. Active membership shall be limited to individuals with the following qualifications whose application is approved by the Board of Directors.
   a. a degree in home economics from a recognized university or
   b. a degree in a related field from a recognized university who by interest and activity serves the goals of the Association or,
   c. was a member in good standing of the unincorporated body known as the Canadian Home Economics Association at the time of the incorporation of the Association and who maintains continuous membership in good standing of this Associaiton.
   d. The Board of Directors may grant active membership to one who, after five years of associate membership in the Association, is deemed to have made an active contribution to the Association or the profession.
2. An individual who has had continuous active membership for at least ten years immediately prior to applying for life membership may become a life member subject to the approval of the Board of Directors.

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Home economics graduates from Canadian universities for the year of graduation with their qualifying degree may become members of the Association at a fee which is one-half the current active/associate membership fee.

Contributing Editor Appointed

Cathy Byard has joined the editorial committee of the *Canadian Home Economics Journal* as contributing editor replacing Dawn Wilkinson. On behalf of CHEA, we extend to Dawn sincere appreciation for her contribution to the *CHEJ* and compliment her on the successful formulation of the "New Developments" section as an amalgamation of the former "What's New" and "New Publications and Visuals" sections.

Cathy Byard (nee Cooke) graduated from Mount Allison University with a BSc degree in home economics. She is presently employed with the Department of Health, Province of Manitoba as a community home economist. Previous professional experience has included employment with Ontario Hydro as a home economist and Brescia College of the University of Western Ontario as a food science laboratory instructor. Cathy is married and has two school-aged children.

The editorial committee welcome Cathy to this position and look forward to the insights she will bring to the future development of the *CHEJ*. ☐

Reader Forum

(Continued from page 127)

During a workshop session, approximately 25 obstacles to economic equality were agreed to. These included lack of education leading to economic independence, lack of information on family economic affairs, need for role models, reactive versus proactive activity, inadequate career counselling, and lack of support systems for families (i.e., day-care, housing). The participants were searching for strategies to overcome the obstacles. Yet, they did not turn to home economics or even understand that home economics could contribute solutions. We need to seriously address the lack of recognition for the potential of home economics.

In the 1984 Fall issue of *CHEJ*, Marjorie East reminded us of the relevance of our profession. She challenged us to anticipate the future and to focus on "helping people, to learn what *they* want to know to solve practical problems *they* perceive and to make the best decisions which will speed them on the way to the goals *they* have chosen" (p. 185).

At the end of the Decade for Women, we need to accept the fact that we have had limited impact; that there is still a great deal to do; and that we must go on to do it. I hope that by the end of the decade that our impact on youth will result in fewer obstacles for women to as they develop their potential and achieve equality.

Margaret Bateman Ellison, PhD
Assistant Professor, Home Economics Department
Mount Saint Vincent University

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Deadline for submission of articles or items for the **Winter 1986** issue of the CHEJ is **September 15, 1985** and for the **Spring 1986** issue is **December 15, 1985.**

La date limite pour faire une soumission pour le numéro de **hiver 1986** de RCEF est le **15 septembre, 1985.** Pour le numéro de **printemps, 1986** de RCEF, la date est le **15 décembre, 1985.**

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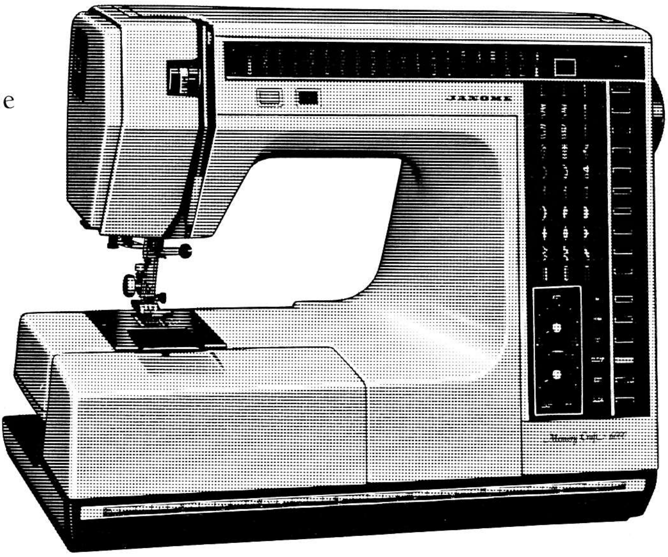

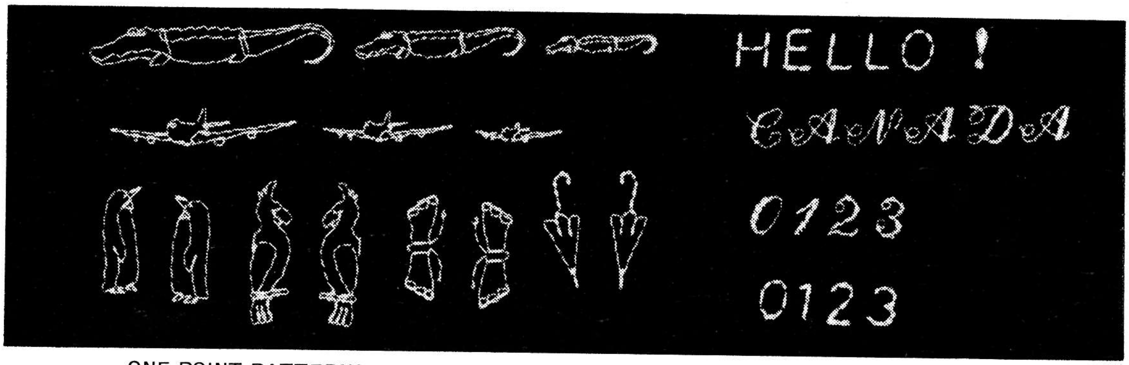

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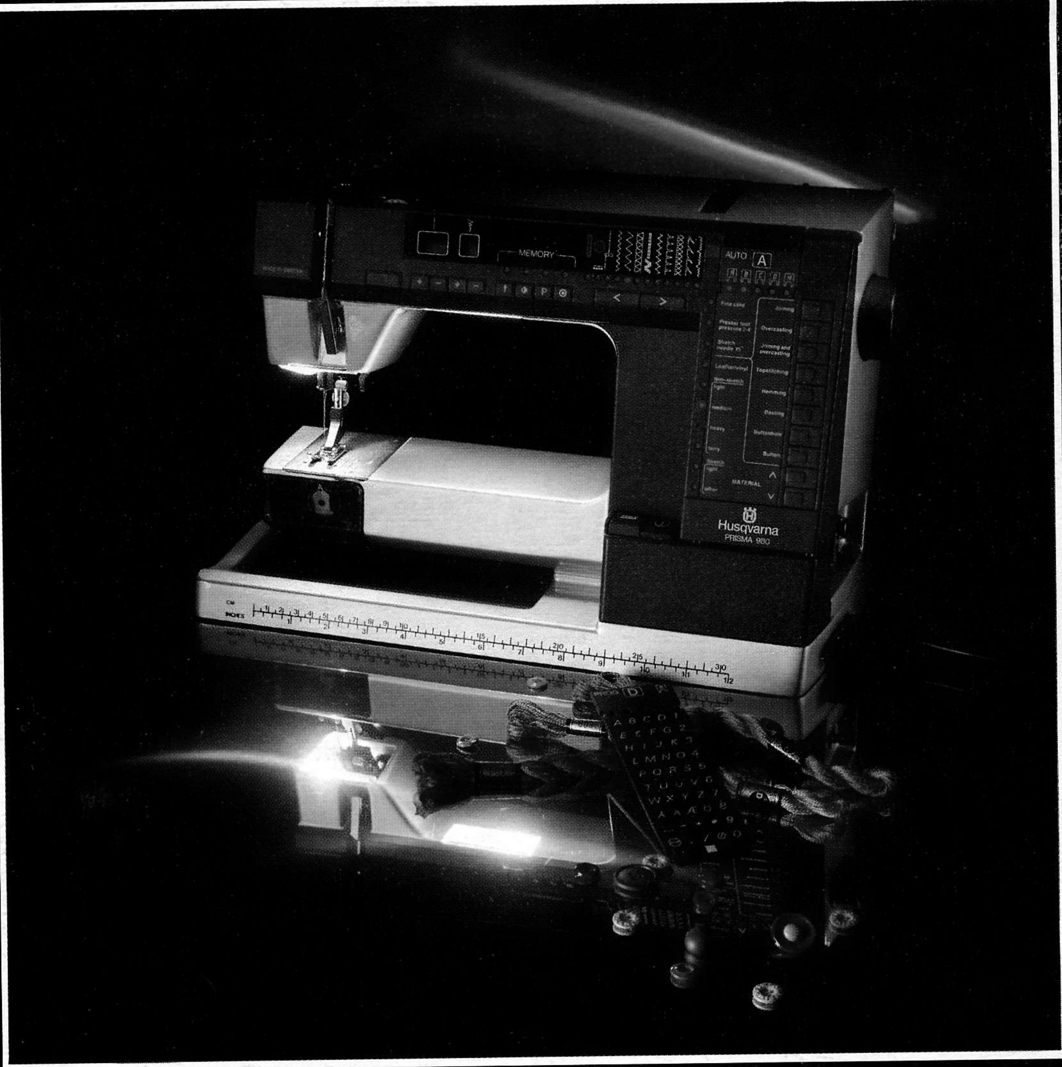

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